

"Psychographology - Its Validation As Personality Measure in Relation to 16PF Scale for English Language handwriting"

A THESIS

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Doctor of Philosophy
in Psychology*



By

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SUPERVISOR'S CERTIFICATE

This is to certify that the thesis entitled, "Psycho-graphology – Its validation as personality Measure in relation to 16PF scale for English language handwriting", being submitted by **Rachna Shrivastava** to the Bundelkhand University, is a record of bonafide research work carried out by her under my supervision and guidance and in my opinion, it has reached the standard fulfilling the requirements of the regulation relating to the degree.

The results contained in the thesis have not been submitted to any other institution for the award of any degree or diploma.

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CHAPTER - I

INTRODUCTION

CHAPTER - I

INTRODUCTION

The term Personality actually comes from the Latin word, "Persona" which means masks used by actors on the stage, but personality in the modern usage of the term means the real individual existing as a self conscious human being, having the quality of being a person and not as a disguised individual.

Personality is the visible aspect of one's character. It is a person as an embodiment of a collection of qualities. Psychology does not regard personality as a passive entity but as that dynamic quality of the individual which finds route or bears fruit through his attitude, conduct and activities. It does not enquire about what personality is but with what it deals. Collectively it has been stipulated by "words worth", "Personality is the total quality of an individual's behaviour".

Personality is not however, a more aggregate but is the unity of integration of manifold manifestations like pleasure, love, hatred, activity, inactivity and hope, despair of the individual. We seek to assess individual personality and to rate the various traits and character. It may be for child guidance, vocational guidance or personality investigation or the all round development of an individual and for any other psychological or psychiatric purpose. How is this done? Based on psychological principles various methods have been evolved, one of these is the investigation of personality on the basis of handwriting. This is graphology.

Graphology is the science of knowing or highlighting a person's character from his handwriting. Psychographology is the science which tries to study

human mind, personality and behaviour through handwriting in scientific way. Since handwriting is a universal means of communication and expression. It is the route for finding important personality information, your handwriting is the record of your personality, your thoughts and emotions, conscious and subconscious, your intentions, talents and ambitions, your strength and short comings, past experience and present state of development, your physical strength are all set down in permanent record by the strokes of your pen as you write.

Communicating through written symbol is a uniquely human endeavour of the millions of species of life on earth, only Homo-sapiens have the ability to use graphic symbols to communicate, even long after they existed, through art, objects, books, wills, music and so on. The term 'graphology' originates from the Greek words – "grapho" which means "writing" and 'logas' means discursive knowledge 'or' study. Thus graphology stands for the "study of handwriting", especially as it is supposed to indicate the writers character, aptitude etc. (Webster's New Twentieth Century unabridged Dictionary). Graphological data are obtained from observation, study and experimentation. Graphology also uses hypothesis and experiments in order to establish a body of facts. Here it is necessary to point out that graphology is the study of all graphic movements and not merely "handwriting analysis". In addition to handwriting, the graphologist studies doodles, drawings, sculptures and paintings in order to gain insight in to the physical, mental and emotional states of the writer or artist. Although all graphic movement can be analysed, the personality work concentrates only on handwriting.

Graphology is complete, accurate examination and evaluation of behaviour and personality of ones innerself, as well as others. If people really

completely and thoroughly knew and understood each other (impossible!), counselling, psychiatry and psychology would be unnecessary and graphology would only divulge those obvious characteristics already known. Each of us is really three person, that is; one's self-image, the personality projected to everyone else, and a combination of all of these. Handwriting reflects the fundamental features which combine to constitute a personality in each individual instance, very faithfully it follows the course of development of the writers.

Over two thousand years ago, Aristotle spoke of dividing man into three separate aspects, the body, the mind and the spirit which is now referred to as the physical, the mental and the emotional studies of thousands of people who have lost the use of their hands and have had to learn to write the pen in their mouths or between their toes show that they eventually produce their own unique "handwriting" the same handwriting they had when they could use their hands. The point is it's not the hand or mouth or toes that decide which way we'll slant our writing or how big we'll write. Those decision actually come from our brain. So when we produce any graphic movement, such as handwriting, we are actually "brain writing" and leaving our "brain-prints" behind on the paper, our brain print reveal who we are and how we think, feel and behave. They are an X-ray of our mind. And, like our finger-prints, they remain uniquely our own forever. No two people ever have the exact same brain prints.

The advance fields of both psychology and psychoanalysis, has widened as well as deepend the scope of the study and the usefulness of graphology. According to the tenents of psychology a man has three distinctive aspects – physical, Mental and emotional.

When we get set to write something, we are using all the three of these aspects. Among the three it is only the emotion which alone guide everything we do. Emotions may arouse, sustain and direct activity. Thus they play an energizing role in one's behaviour. Graphology is considered to be an art by means of which we can detect the emotions of an individual as reflected in his/her handwriting.

Psycho-graphology is a scientific study of handwriting as a means of ascertaining individual character on principles of psycho-analysis. This method of personality investigation, character-analysis and subsequent psychological study is most economical, quick and practical in application. As far as its reliability is concerned, it is sufficient to say that it is continuously tested in all spheres by expert and eminent graphologists.

If you compare the samples of your handwriting at various times over a periods of year, you notice at once how they vary. Samples from your school days have little resemblance to your present writing, which may slant in the opposite direction and show entirely different shapes of letters. A letter you wrote when you were well and happy look quiet different from another, written when you were sad, depressed or ill. Just your personality has changed during the progress of your life, so has your handwriting is faithful echo. Moreover it is a permanent record. Hence it affords permanent and representative data for scientific treatment. The method of investigation is based upon the principles of psycho-analysis given a specimen of handwriting, it is possible to make out with confidence a sufficiently close broad outline of the writers psychological picture.

The reason for this close association between personality and handwriting is this every nervous and muscular movement originates in the brain. The hand merely holds the pen or pencil; it is the brain which is thus responsible for the manner in which you form letter and space you lines. If you sit on the bench and idly write in the sand with your toe, the marks you make will have the same characteristics of your handwriting. At this stage, an objection may be raised, if handwriting changes so often in each individual case, how it represent personality and character? How can it give details of traits which would be reliable? This would seem an objection but would infact explain one advantage of this facinating method of character analysis. It protrays the man as he is, an emotional, flexible, living being. Handwriting like personality, is individually characteristic as well as has quality of exhibiting changes.

A psycho-graphological examination of handwriting specimen of a youngest reveals the effect of education on him, the effect of other factors that might have played an important part of the formation of his character, standing of culture, capabilities, failings and the negative qualities resulting in reactionary activities, showing off by aggressiveness, feeling of inferiority, dishonesty, irritability etc. The positive and negative traits of child's character having been found out, and the psychological working of his mind having been studied, the diagnosis and of a psychological remedy do the remain difficult to make out.

There are some every day occurrences in handwriting we all notice them from time to time and observe on serious reflection that handwriting is inseparably related with the writer. The relationship is direct and continuous, out of this relationship based on the principles of psycho-analysis a systematic method of investigation personality and character has emerged and proved to be of considerable value in the fields where knowledge of human nature is useful.

In our country, psycho-graphology may be thought to be a young science, but it has proved the claim it makes again and again in the field of research and operation. In various countries this science is being beneficially employed in child clinics, selection of teachers, selection of personnel for responsible jobs, vocational guidance, crime investigation etc. It is not yet popularly known in this country and even if it is not possible to permit it to take upon itself the task of analyzing the characters, personal aptitudes and abnormal behaviour of problematical children. It can certainly be made use of as an aid to psychological study and investigation.

The purpose of this study is to know the reliability of graphology as a tool of personality measurement. The purpose is also to find out whether handwriting changes according to the personality of a person and whether persons of the same personality characteristics possess the similar handwriting traits or not. To achieve this purpose following problem was taken.

(2) STATEMENT OF PROBLEM :-

“Psycho-graphology”, its validation as personality measure in relation to 16PF scale and T.A.T.

(3) JUSTIFICATION OF THE PROBLEM :-

Hundreds of years ago many attempts were made to find a convenient and reliable method of judging character of a person as, colour of his eyes, size and lines of forehead, lines of his hand (Palmistry) and his writing. But later

psychologists developed many scientific tests of assessing the physical and mental characteristics of a person.

The science of psychology provides many elaborate ways of assessing the physical and mental characteristics of a person, but none of them can be compared with graphology in easiness, thoroughness and quickness (John Gillman, Graphologist). Every time a person writes his name, he is registering a pen picture of his personality. "(Robert Holder, Graphologist)". Inspite of all these challenges, psychologists do not recognize graphology as a reliable and scientific method for the measurement of human behaviour in general and personality in particular. Therefore it was thought by the researcher to test the accuracy of the graphology as personality measure scientifically.

Psycho-graphology, as a reliable measure to study personality and behaviour will prove economical and convenient for psychologists since, it is readily available always and everywhere. Therefore, the need to enlist it in the field of measurement as a scientific measure, was felt by the researcher and inspired her to do the pioneer research work.

(4) DEFINATION OF THE KEY TERM :-

(A) Personality :- R.B. Cattell has attempted to define and refine conception on personality are based on factor analysis method and underlies trait theory on personality. According to him, "Personality is a structure of traits which are both surface traits and source traits. The traits emphasized in the inventory are source traits".

C.w. Allport (1937, "Personality is the dynamic organization within the individual of those psychophysical systems that determine his unique adjustments to his environment".

(B) **Graphology** : "Graphology is the Art of knowing men by their handwriting". (Abbe Lean Hyppolyte Michon).

(C) **Psychographology** : Psychographology is the interpretation of handwriting by the principles of psychoanalysis.

(5) OBJECTIVES :-

1. To study whether there is significant difference in the graphological patterns of the persons coming in the category of either introversion or extroversion.
2. To study whether there is significant difference in the graphological patterns of the person coming in the category of either high or low Anxiety.
3. To study whether there is significant difference in the graphological patterns of the person coming in the category of Tough poise or Tendermindedness.
4. To study whether there is significant difference in the graphological patterns of the persons coming in the category of either subduedness or Independence.
5. To study whether there is a set of combination of handwriting traits for each of the second order scoring factors of 16P.F. Test.
6. To study whether there is any relationship between graphology and personality or not.

(6) SPECIFIC RESEARCH QUESTIONS :-

- (i) Is there any significant different in the handwriting of the persons coming in the category of either introversion or extroversion?
- (ii) Is there any significant difference in the handwriting of the persons coming in the category of either high or low anxiety?
- (iii) Is there any significant difference in the handwriting of the persons coming in the category of either Tough poise or tendermindedness?
- (iv) Is there any significant difference in the handwriting of the persons coming in the category of either Subduedness or Independent?
- (v) Is there any set of combination of handwriting traits for each of the second order scoring factors of 16P.F. test?
- (vi) Is there any relationship between graphology and personality?

(7) HYPOTHESES :-

1. There is no significant difference in the handwriting of the persons coming in the category of either Introversion or extroversion.
2. There is no significant difference in the handwriting of the persons coming in the category of either high or low anxiety.
3. There is no significant difference in the handwriting of the persons coming in the category of either Tough Poise or Tendermindedness.
4. There is no significant difference in the handwriting of the persons coming in the category of either Subduedness or Independent.
5. There is no set of combination of handwriting traits for each of the second order scoring factors of 16 P.F. test.
6. There is no relationship between graphology and personality.

CHAPTER - II

LITERATURE REVIEW

CHAPTER - II

LITERATURE REVIEW

Handwriting is an art by which the exterior manifestations are made of the inward thoughts, emotions and passions. For hundreds of years man is known to have used this art to communicate to the external world. Thus handwriting is the representation of the multifarious character of a person. Thus from ancient times learned men were interested in the art of handwriting analysis which is now popularly known as graphology. There exists some sketchy knowledge that as early as three hundred years before Christ, Aristotle and orator demetrius phalereus anticipated that handwriting reveals character; and in 99 A.D., Roman historian Guetonians made skilful study of Emperor August's personality from his handwriting. During the middle Ages, only the monks practiced the art of telling character from handwriting, but in the Renaissance, it also interested intellectuals like Shakespeare, who said, "Give me the handwriting of a woman, and I will tell you her character".

The most significant step in the advance of graphology was taken in the France during the second half of the last century, by the "Abb Jean Hippolyte Michon, who", in 1871, introduced the term, "Graphology". After the cautiously groping beginnings made by "Baldi and Lavater", he was the first to attempt the foundation of a scientific method. Although the subject is comparatively modern in the form in which we know it, it really dates back several centuries and has been said to be, "as old as the hills". Without doubt the greater writers upon graphology have been, generally speaking, of French Origin. But the oldest work extant, it is believed, is said to have written by Baldo an Italian in 1622. It does not appear to have excited and great interest in the subject however. The "Abe Fladrin of Paris some thirty years since, systematised graphologic-

analysis, when the subject was raised above the level of more intuitive guess work, but it was not until the "Abb Michon, in 1872, published a work dealing with the matter that graphology really took a definite form. Miss "Rosa Baugham" who was the first modern English writer to put her name to a work treating an Graphology, published, about (1875) some admirable papers on the subject, which have since formed the only important work in the tongue.

The first record of a book on the subject of graphology is dated about '1630', written by 'Camilio Baldo', an Italian professor. About two hundred years later the subject of handwriting analysis was revived in France, when 'Abbe Flandrin', a cultured Church man, became greatly interested in Baldo's book. The learned 'Abbe' left it merited study and discussion; he formed a group who worked on the subject, classifying handwritings of people of various interests and pursuits, and within that group were born the basic rules of handwriting analysis now in use. To give this new science a name, the 'Abbe' used two Greek word, grapho, meaning to 'write' and 'logy' which means a 'Science' thus the coined word Graphology.

Graphological societies were formed in the nineteenth century in most European countries, and there graphology is considered seriously as a supplemental aid to the psychologist and psychiatrist and is accorded a top-ranking place.

The science of graphology is commonly believed to an entirely modern one. Actually it has a history of almost seventy years, and the notion of a connection between handwriting and personality can be traced to antiquity. The first detailed work on the relation between handwriting and personality was

published in 1622. Its author was Baldi, doctor and professor in the university of Bologne, a famous scholor of his time.

In this work Baldi wrote, "It is obvious that all persons write in their own peculiar way and than in private letters everybody uses such characteristics forms as can not be truly imitated by anybody else".

At the end of his work Baldi as a careful observer he was, drew the following conclusions, "These and other similar traits of character can be recognised in any handwriting by way of thorough examination, yet it is necessary to observe carefully whether the characteristics of handwriting recur, moreover whether they are in any way artificial and finally whether they result from various deceptive causes which are due to writing materials.

This small book, hardly satisfactory if compared with our modern conception of research work, was the first step forwards a science of graphology in Europe and infact, an admirably clever and lucid attempt. The attempt to read character from handwriting is not by means new. As early as the seventeenth century it was a favourite pastime at various European courts, Between roughly 1870 and 1819 a great deal of work was done by many eager workers in Europe and America. There was much experimenting and gathering of statistics, and certain formations of handwriting were related to definate traits of character. The means used were often hapazard and unscientific, the results some times wide to the work, but the material collected was invaluable.

Many remarkable philosophers, psychologists and scientists, delving even deeper into the secrets of handwriting have continued to work right down to our own times to move graphology forward step by step. Best known are French philosopher and noble prize winner Henri Bergson, Dr. Pierre Lanet,

eminent psychiatrist and professor Ludwing Klages, outstanding Swiss psychologist max pulver. Who introduced the importance of unconscious drives in handwriting, C.G. Leeng, reknowned Swiss psychiatrist (Tendences de "I Etra Humain), cu, Heger, and Rene he senne, who adopted the method of classification of the Dutch School of Graningue.

In 1954, Helene de Gobineau, published a book in collaboration with R.Perron, which served as an important contribution of graphology; Genetique de I 'Leriture el Flude de la personnalite'. This book explains their innovation, graphometrie, which is a technique to prove that graphology can be scientifically validated by statistics. In America, and in India, too, the forensic uses of handwriting expertise have become an important tool in the detection of forgery cases. This shows that the law admits that handwriting is unique and individually identifiable yet it is not considered as a proof in law. The F.B.I. quietly makes use of it as do many commercial establishments, periodicals treat it seriously in their articles, and some hospitals and clinics are finding new application for it.

Studies have revealed that graphology has a profound impact in seven major areas :- psychology, social work, medicine, education, business, personal uses and crime solving. Graphology, a new trait for the graphologists, is both ideal and effective for the treatment of personality and character flows especially in Children. The latest development in the area of pathology has been the detection of cancer from handwriting, which has been discovered by a graphologist named Alfred Kanfer through thirty years of painstaking research. Another leading American graphologist Andre M.C. Nichol has been successful in answering various difficult questions correctly through writing analysis like who's setting fire to the plastic surgeon's office, who murdered the secretary

Boss? Who stole the diamonds? Which employee is giving away trade secrets? Suicide or murder? Which person would you hire as your House-Keeper? Who's gat Dusteria? Who's the drug addict? and soon.

Graphology has had its course of development and research. Starting with a list of flourishes, dots and dashes, it has developed into a scientific study of the motor, spatial and formative impulses. It is not yet popular known in our country, but in some of the European countries. It has already reached the university stage. In graphology the work of Dr. R. Saudek, Hans Jacaby, Harry O' Telscher, Lowengard, Kurt Rahnor are monumental.

In recent history Sigmund Freud wrote several technical works demonstrating graphology's validity and uses. Alfred Binet, who developed the modern I.Q. test, conducted many years of exhaustive research on graphology. He called graphology "the science of the future".

By examining more specifically the new international developments we find that the brilliant modern scholars have enormously increased its scope. Many advanced psychological techniques have been applied to graphology. According to Jhon Gillman there are 5 means by which a graphological result may be obtained.

1. Direct deduction (signs and symbols of classical graphology).
2. Indirect deduction; (a) Resultants (b) Typology.
3. Graphometry (use of statistics to discover constant, which validate a sign or signs).
4. Psychology (symbolism)
5. Physiology (graphic testimony of the body's condition).

Grapho-Therapeutics, a new term in the field of graphology, is the treatment of personality and character flows through deliberately made change in the handwriting. Thus we see that several studies have been done in different fields and on various aspects applying graphological norms. In America and in England the Forensic uses of handwriting expertise in cases of Forgery long have been perfectly acceptable, which means the law admits that handwriting is unique and individually identifiable.

The new graphology went forward by leaps and bounds.

The discovery of the principle and the development's which immediately followed it were the work of one man, Dr. Robert Saudek of London.

This work has already been widely recognized though perhaps more so on the continent than in England. The subject is now studied number of universities and technical colleges and is finding ever increasing application in the practical affairs of life.

Many of the largest commercial concerns make a practice of submitting to a graphologist the handwriting of applicants for important 'posts' Graphology is used in progressive schools to discover the causes that are hindering the mental growth of backward children, medical men use it as a means of diagnosis in case of irritation of the central nervous system, it is widely and increasingly employed in the civil and criminal courts.

Graphology may be the science of future, but its overall acceptance is greatly affected by its status in the academic world. Through out Europe, the Soviet

Union, South America and Israel, universities offer formal training and in some instances, doctorate degrees in graphology. In these parts of the world it is very difficult to get a job of any significant responsibility without first having one's handwriting analyzed. Is real, considered the leader in the field, even trains. Its border guards in the science to help them detect undesirables trying to enter the country.

CHAPTER - III

METHODOLOGY

CHAPTER - III (Methodology)

The methodology of this study has been presented in this chapter under the following heads –

A. The Sample	D. Procedure
B. Tools	E. Statistical Treatment of the Data
C. Variables involved	F. Limitations of the Study.

A. **SAMPLE**:- the sample is comprised of 200 educated subjects, of both the Sex (male – 70, Female – 130) their age ranging from 18 to 40 years. It was taken in to consideration that all the subjects should know English language.

B. **TOOLS** :-

1. The sixteen personality factor questionnaire (16 P.F.) (by R.B. Cattell and others).

This is an objectively scorable test devised by basic research in psychology to given the most complete coverage of personality possible in a brief time, the test was designed for use with individuals aged seventeen through the mature adult range. Forms A, B, C and D are for literate person, the person whose educational level is equivalent to that of the normal high school graduate Form 'E' of the scale is based on culturally disadvantaged subjects. The test can be scored by hand or by machine.

All the sixteen dimensions or scales are essentially independent; that is to say, the correlation between one and another is usually quite small there fore, having a certain position on one dimension does not prevent the person's having any position, it may be, on any other dimension. Thus each of the sixteen scales brings an entirely new piece of information about the person, a condition not found in many alleged multi-dimensional scales.

TABLE – A

The descriptions of sixteen factors are as follows Table.

Factors	Low Score direction	High score direction
A	Reserved	Out going
B	Less intelligent	More intelligent
C	Affected by feelings	Emotionally
E	Humble	Assertive
F	Sober	Happy-go-lucky
G	Expedient	Conscientious
H	Shy	Venturesome
I	Tough-minded	Tender-minded
L	Trusting	Suspicious
M	Practical	Imaginative
N	Forthright	Shrewd
O	Placid	Apprehensive
Q1	Conservative	Experimenting
Q2	Group dependent	Self-sufficient
Q3	Undisciplined	Controlled
Q4	Relaxed	Tense

TABLE – B

The 16 P.F. can be Scored for four broad Second-order factors (and some derivations) as well as for the sixteen primaries. They consist of the following well known dimensions.

Factors	Low score direction	High score direction
+		
QI	Introversion	Extroversion
QII	Low Anxiety	High anxiety
QIII	Tenderminded	Tough poise
QIV	Emotionality Subduedness	Independent

Second order scorers are not derived from raw scores on the primaries but from the sten into which the former have first been converted. If the primary sten scores are combined, with weights as shown in the following tables, they will come out as stens for the second order, directly.

TABLE - C

16 P.F. Second Order Scoring for Females (an example of second order scoring)

Factor	Raw Score	Sten Score	Extroversion	Anxiety	Tough Poise	Independent
A	12	6	(3) 18	(1) 6	(2) 12	
B	10	10			(1) 10	
C	10	3		(3) 9		(1) 3
E	8	4	(2) 8		(3) 12	(4) 16
F	14	6	(3) 18		(9) 12	
G	13	6	(1) 6	(1) 6		(1) 6
H	10	4	(3) 12	(1) 4 (4) 16		
I	13	6		(1) 6	(2) 12 (1) 6	
L	7	5	(1) 5	(1) 5	(5) 25	(1) 5

M	9	4	(1) 4	(1) 4	(2) 8	(3) 12	
N	9	4	(1) 4				(1) 4
O	16	7	(1) 7	(3) 21		(1) 7	(2) 14
Q1	9	6				(1) 6	(3) 18
Q2	14		(3) 27				(2) 18
Q3	16	9		(1) 9	(2) 18		
Q4	10	4	(1) 4	(4) 16	(1) 4		
Constant			1.1	2.8	1.1		0.6
			+8.2	+8.8	+9.8		+8.1
			-4.2	-2.6	-5.5		-2.7
Sten scores			4.0	6.2	4.3		5.4

16 P.F. Test can be scored in three ways one with a stencil key, two machine score and third one in NCS answer sheet. For this specific research we used stencil key for scoring. There are two, cardboard/butter paper stencil key for scoring different factors stencil No. 1 covers factor (traits) A, C, F, H, L, N, Q1 and Q3 No. 2 covers the factor B, E, G, I, M, O, Q2 and Q4. At first we set the stencil on the answer sheet and counted the pencil marks visible and summed these scores and enter them in the space indicated by the arrow on the answer sheet.

TABLE - D

Reliability :- The test Retest after Six days reliability, coefficients for 16 personality factors range from '76 to '93. The description is given in the following Table.

Factor	A	B	C	E	F	G	H	I	L	M	N	O	Q ₁	Q ₂	Q ₃	Q ₄
Form A+B	.89	-	.87	.88	.90	.88	.93	.89	.87	.82	.76	.89	.83	.85	.78	.91
Form A	.81	-	.78	.80	.79	.81	.83	.77	.75	.70	.61	.74	.73	.73	.62	.81
Form B	.75	-	.74	.80	.81	.77	.89	.79	.77	.77	.60	.81	.70	.75	.62	.87

Validity :- The validity of the test itself is meant to be concept (or "Construct") validity. That is to say, the test questions (or items), as stated above, are chosen as being good measures of the personality factors, as these factors are represented in research analysis. The mean correlation of all single items with the factors they represent is about +.37 and, assuming a mean intercorrelation of the items of +.10, the mean correlation of each group of items with the factor it represents, i.e., the concept validity turns out to be about - .85, which is an acceptable performance for so brief a test.

TABLE - E

The description is given in the following Table.

Factor	A	B	C	E	F	G	H	I	L	M	N	O	Q ₁	Q ₂	Q ₃	Q ₄
Direct Validity s (A+B)	.86	.75	.82	.75	.84	.74	.92	.82	.78	.74	.77	.85	.86	.76	.83	.83
Direct Validity s (A or B alone)	.77	.62	.71	.66	.75	.63	.87	.71	.63	.58	.59	.75	.66	.62	.58	.75
Circumstantial Validity s (A or B alone)	.84	.42	.94	.63	.78	.66	.96	.74	.96	.77	.93	.89	.88	.77	.81	.99

Comprehensive coverage of personality rests upon measurement of sixteen fractionally independent and psychologically meaningful dimensions

isolated and replicated on normal and clinical groups. The test user may need a little practise to get used of handling as many as sixteen traits, but the expanded possibilities for understanding and predicting behaviour will more than compensate him for the effort involved. For this specific purpose form 'B' was used by the researcher.

2. Thematic Apperception Test (T.A.T.) :-

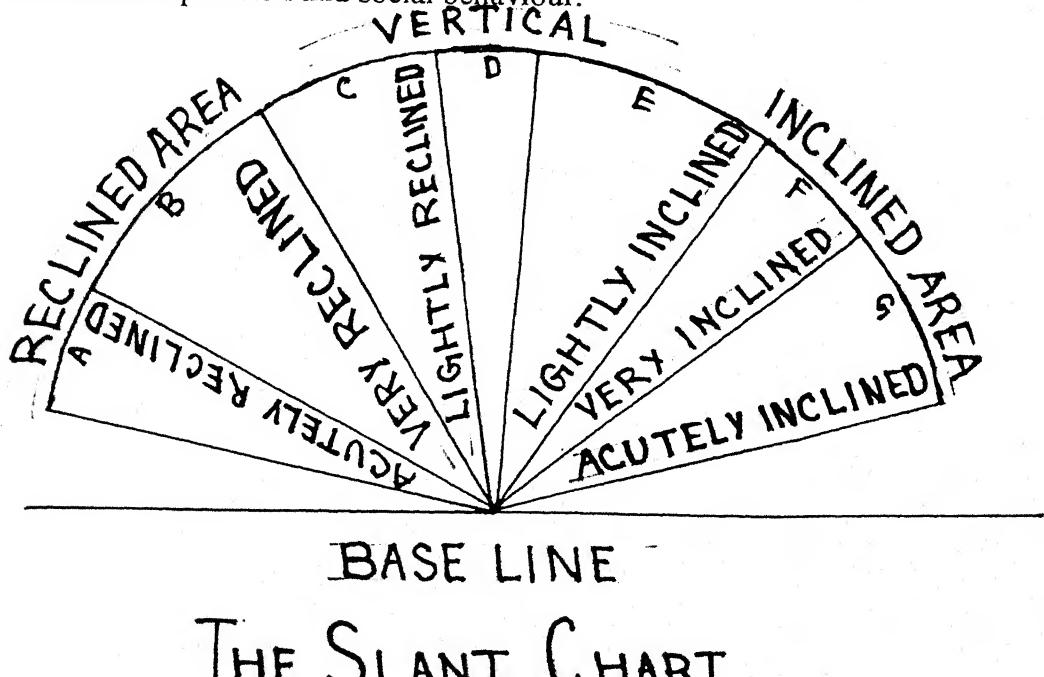
T.A.T. Thematic Apperception Test belongs to thematic projective class of techniques. T.A.T. belongs to type and tools in which the subject is asked to handle a problem in his own style. In a way, T.A.T. is a class of stylistic tests in which thoughts and fantasies of the subject are stimulated through appropriate stimuli. Thematic categories are not mutually barren but full of symbolism, the style of information gives sources to come closer to personality and to the "whole man", as the psychological nature of emotions, attitudes, feelings, fear, anxieties and cognitive processes. According to Murray, the brain is the seat, of power and personality is anchored to the brain. T.A.T. is described as viable assessment tool. Morgan and Murray have shaped the test properly.

N.B. : In this study such specimen of handwriting was needed which reflected maximum personality traits of the subject. T.A.T. is a good reliable projective technique of personality measurement. Hence T.A.T. was used for this purpose. All the subjects (individually) were asked to choose a picture card and write a story. It was assumed that subject's personality will reflect in his handwriting.

3. Psychographology :- There is no standard test and norms for the handwriting analysis. Graphologist generally analyses the handwriting with the help of some

graphological traits. The following traits were used in this study to analyse the handwriting of the sample.

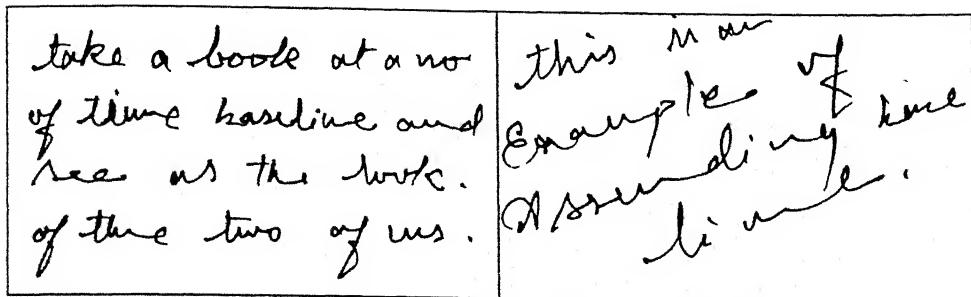
1. **SLANT** :- Slant signifies one's emotions. It determines the degree of emotional expression and social behaviour.



The diagram above shows several degrees of slant in handwriting, also called "Angle of inclination". These degrees of slant show the degree of extroversion or introversion in the nature of the writer. The perpendicular line 'C' (representing the 'Vertical slant'), is the dividing line, a slant to the left of (C) shows mainly introverted tendencies, a slant to right of (C) indicates predominantly extroverted characteristics.

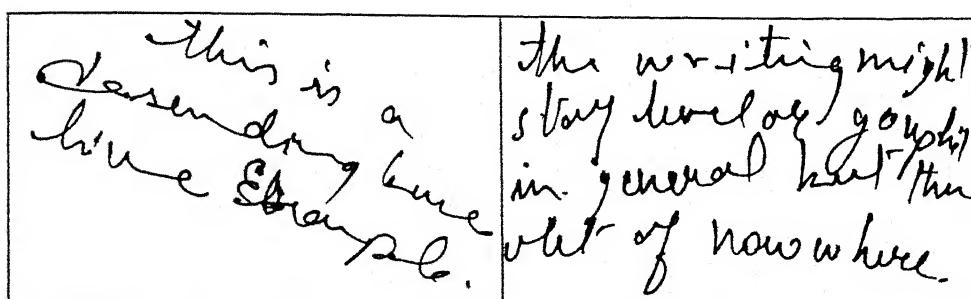
- A. Supersensitive, understrained, passionate.
- B. Demonstrative, emotional.
- C. Disciplined, intellectual.
- D. Reserved, self-restrained, repressed.
- E. Strongly inhibited, full of inner conflicts, unapproachable.

2. **BASELINE** :- "Baseline" refers to the imaginary line upon which we write on a blank piece of paper. To measure the baseline we use four major types i.e., straight, Ascending, Descending and varying. Sample of these traits are given below.



STRAIGHT

ASCENDING



DESCENDING

VARYING

- A. Straight :- This is the baseline of some one who exerts a degree of control over his outward moods.
- B. Ascending :- Writing means healthy mental energy and indicates someone who wants to stay busy, active, and constantly on the go, ambitious.
- C. Descending :- Downhill writers are usually negative people. They look on the down side of thing, are often fatalists.
- D. Varying :- When the lines go up and down there is instability of feeling and thoughts, indecision nervousness lack of mental control and of discipline.

3. **MARGINE** :- "Margine" represents how do people interact with other people and with life around them we use four main types for measuring margine. These are as follows.

before you start writing or reading about margins lets see how much you already know about them without realizing them.

you can control your left margin because you can choose where you start each line of writing but you do not?

A.

B.

A left margin that wider as it descends means rapidly and spontaneous writing of your are.

By a writing who uses "no margin at all" mean someone who writes this way page after page. Obviously some one write like this because he has only one piece

C.

D.

- A. Ideal :- Ideal margine means healthy relation to the past and future.
- B. Left M. Narrow as it descends :- It means the writer would obviously be running out of room. Fatigue, physical and moral depression etc.
- C. Left M. Wide as it descends :- It means rapid and spontaneous writing. Haste to make a point or reach a goal.
- D. No. Ma. At all :- Indicates someone who feels he must fill every walking moment of his life with an activity.

4. **SPACING** :- Spacing refers the distances between letters, words and lines of writing. Spacing tells how the writer feels toward other people, about his social behaviour etc. To measure the spacing we use four major types i.e. Normal, wide, Narrow and varying spacing. These are as follows :-

<p>Spacing tells how the writer feels towards other people about his social behaviour and whether or not he thinks people have an imaginary barrier around him which most of us observe.</p>	
--	--

A.

B.

<p>If this spacing between the letters in this sample is abnormally wide, this is extremely strange and abnormal behavior.</p>	<p>Some time, uneven spacing is a result of the writer's struggling with what is</p>
--	--

C.

D.

A. Normal :- Spacing means personal harmony, flexibility and proper balance, ability to make friends and be close to others.

B. Wide Spacing :- Need for inner privacy and "space", tendency for isolation, suspicious, extroverted, outgoing, broad minded etc.

C. Narrow :- Self-centered, want close interaction with the environment and society, introverted and good concentration etc.

D. Varying :- Uneven spacing is symptomatic of uneven thinking, of inferior intelligence at the time of the uneven writing.

5. **PRESSURE** :- Pressure reveals the amount of mental energy the writer is currently using in his life. It can also reveal the Intensity, Strength, appetites and desires of the writers. Measure the amount of force of writing we use three main types which are as follows.

normal pressure
Signifies emotional
stability, calmness
carefulness and
adaptability

A

Remember how
you felt when
you wrote with
light Pressure.

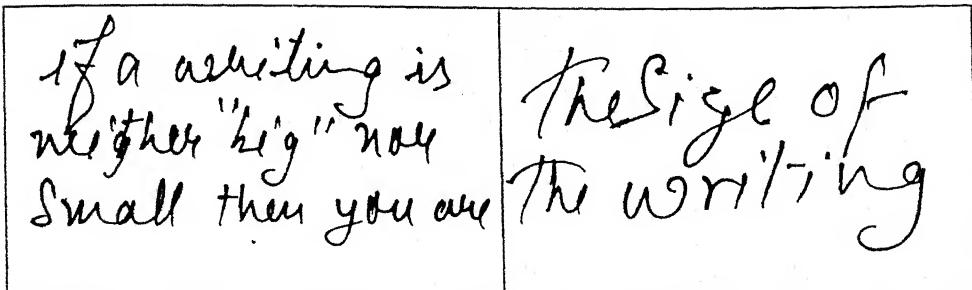
B

Heavy Pressure means
the writer is bearing
down, feeling intense
resolute, assertive
and more aggressive

C

- A. Normal Pressure :- Normal Pressure signifies emotional stability, calmness, carefulness and adaptability.
- B. Light Pressure :- Reveals the sensitiveness, timidity, submissiveness, low vitality and possibly low blood pressure.
- C. Heavy Pressure :- Means the writer is bearing down, feeling intense, resolute, assertive and more aggressive.

6. SIZE :- Size paints a picture of how relatively small or large our thoughts and life experiences are. There are three main types of size – Medium, Large and Small.



A.

B.

Small writing most often
means introversion. To
produce small writing
you have to confine the
movements of your hands

C.

A. Medium Size :- Writing reveals "middle of the road" attitude, secure, conservation, lawful, traditional and realistic.

B. Large Size :- Reveals, Bold, aggressiveness, extroverted, needs people, optimistic, lacks of concentration and discipline etc.

C. Small Size :- Means not very communicative, good organizer, Introvert and economy etc.

7. **SPEED** :- The speed of a writing tells how quickly an individual thinks and acts, the person's intelligence level and his degree of spontaneity and honesty. Measure the speed we use two main types which are as follows.

if he does its a Sign of
gracious behaviour and
calculated responses the
writer goes slowly lest he
give himself away by act.

A.

A fast speed of
writer always
be a clear
minded and
Sincere.

B.

A. Normal Speed :- Means average intelligence, energy and morality on a mundane level.

B. Fast Speed :- Associated with intelligence and spontaneity quick minded, fast friend etc.

8. **ZONES** :- There are three zones in handwriting. They are the upper, middle and lower zones.

simplification hay

1. Upper Zone hay

2. Middle Zone hay

3. Lower Zone hay

The Upper zone covers the upper loops of such letter as l, t, etc. The middle zone takes in all small letters without either upper or lower loops, as i, o, me, etc. The lower zone covers the Lower loops of all letter which extend below the baseline, such as g, y, p, etc. According to ancient graphologist these three zones could be interpreted as follows, upper zone, the world of mind, middle zone, the world of the soul, lower zone, the material world. Modern research and long experiences have substantiated this interpretation, and the modern psychographologist says that the upper zone of a handwriting reflects the mental interest – ideas, thoughts, plans, intentions, the middle zone reflects spiritual and psychical interests, while the lower zones shows material and sexual interests.

9. **WRITING STYLE** :- There are three basic ways to handwrite which are given as under.

why do so many
more men often
write in Print
style than women
this is a Reality.

you probably
already know
that more men
are women

A.

B.

Print writing
is a mixture
of both print
writing and
cursive writing.

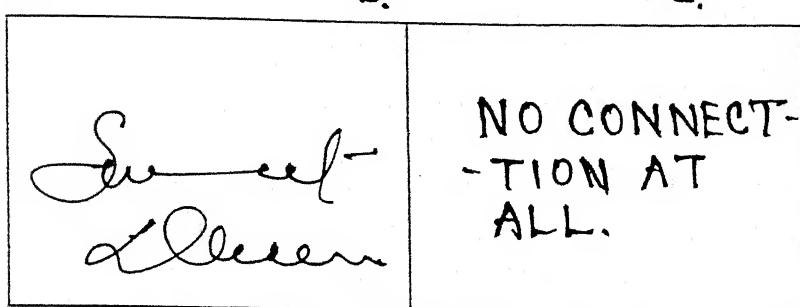
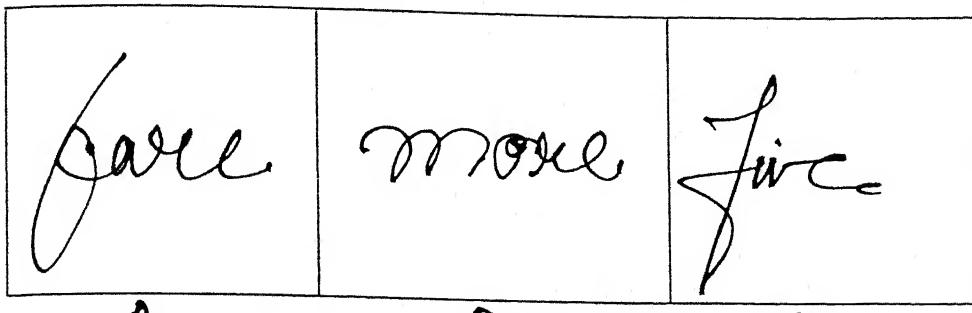
C.

A. **Printing** :- In printing each letter is separate, and there are no connecting strokes. It means writer is sociable, aggressive or dishonest. So subconsciously printing is one of the most effective ways to hide your personality from others.

B. **Cursive** :- Cursive writing means the writer is highly sequential in thought and action, he does not want to stop.

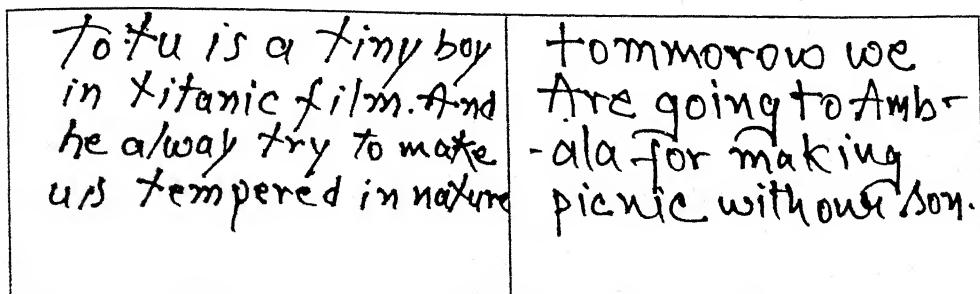
C. **Print – Writing** :- Print writing means intelligence, speed, efficiently, directness and simplification etc.

10. **CONNECTING STROKES** :- There are four basic types of connecting strokes, which are as follows.



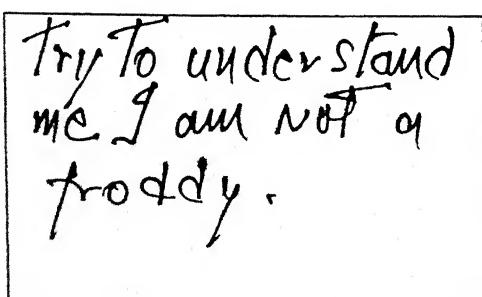
- D.** **Garlands** :- A garland connects the letters with an underhand strokes. It means friendly, sociable, ready to establish a link with others, flexible and communicate etc.
- B.** **Arcades** :- An arcade connects the letter with an overhanded strokes. Arcades indicate a desire to cover up, a desire for formality control, to pretend to live by rule rather than live one's own life.
- C.** **Angles** :- An angle connects letters using angles. Angles are associated with aggressiveness, competitive, determined, serious about their work, and not easily influenced.
- D.** **Threading** :- A Threading connecting strokes is really no connecting stroke at all. It's just a little squiggle, so that you can barely read the word. Associated with deviousness, sneakiness, evasiveness when with illegibility.
- E.** **No Connecting Strokes** :- In printing each letter is separate, and there is no connecting strokes. It means one does not want to reveal one's real personality to others.

11. **WORK DRIVE** :- Measuring work drive graphologists taken into account four separate aspects, the height, length, pressure and the angle of the crossing of 't' bars etc. There are three basic types of work drive, which are given below.



A.

B.



C.

- A. Weak Work Drive :- Sign of weak work drive is low crossing, short length, light pressure and angle crossing. It means weak will power, drive and ambition etc.
- B. Average Work Drive :- Sign of Average work drive is medium 't' bars in all respects medium crossing and straight line across. It means average work drive and ambition and will power etc.
- C. Strong Work Drive :- Very strong 't' bar crossing are associated with workaholics people with incredibly strong work drive and willpower.

VARIABLES INVOLVED :-

- (i) **Independent Variable** :- Personality characteristics.
- (ii) **Dependent Variable** :- Handwriting characteristics.

PROCEDURE :- Researcher personally approached each subject of the sample and asked to fill the form of 16 P.F. and collected the samples of their handwriting in English language, by asking them to write a story with the help of T.A.T. picture card, selected by the subject himself only.

Generally there is no standard scoring procedure of graphology. The following procedure taken in order to do the statistical calculation.

1. First of all first and second order scoring of 16 P.F. was done.
2. All the 200 candidates of the sample were classified in four major categories. With the help of 16 P.F. second order scoring procedure and these categories are – Introversion vs. Extroversion, Low Anxiety vs. High Anxiety, Tenderminded Emotionality vs. Tough poise, and subduedness vs. Independent.
3. Afterwards those handwriting characteristics which are common in one group in a statistically significant number were analysed in order to study, whether they match the specific personality characteristics of that group or not.
4. If, there are several major combinations of handwriting traits found in the writings of each of personality categories, then it may be hypothesized that these combinations of traits are associated with those personality categories.

STATISTICAL TREATMENT OF THE DATA :-

1. In order to compare the two groups i.e. (Introversion vs. Extroversion, High Anxiety vs. Low Anxiety, Tenderminded Emotionality vs. Tough Poise and Subduedness vs. Independent, percentages were calculated.
2. In order to study the significant difference between different categories of personality as extroversion, Anxiety, tough poise and Independent group through graphology, critical Ratios (C.R.) were calculated. First, the percentage of subjects with the particular handwriting characteristics were calculated separately for each group and for each characteristics of the handwriting. Then the difference in the percentages (D%) between the two groups for each handwriting characteristics were found. Finally, the significance of the difference between two percentages the C.R. was calculated for each handwriting characteristics as depicted below –

Formula Used :-

$$\sigma D\% = \sigma P_1 - P_2 = \sigma^2 P_1 + \sigma^2 P = PQ [1/N_1 + 1/N_2]$$

$$P = \frac{N_1 P_1 + N_2 P_2}{N_1 + N_2} \quad Q = (100 - P)$$

$$C.R. = \frac{(P_1 - P_2)}{\sigma P_1 - P_2} Q$$

Where :- N_1 = Total number of subjects in Low sten scores group (1-4)
 N_2 = Total number of subjects in High sten scores group (6-10)

P_1 = Percentage of four second order traits group, i.e., Introversion group, Low Anxiety group, Tenderminded group and subdueaness group.

P_2 = Percentage of four second order traits group, i.e., extroversion group, High Anxiety group, Tough poise group and Independent group.

Limitations of the Study :-

1. Besides percentage, other statistics, might have been computed for comparing the handwriting of different groups.
2. The results are based on only one specimen of handwriting of each subjects. For reliable and consistent results more than one specimen of handwriting should have been taken. But it was not feasible to take more than one specimen of handwriting of each subject individually in sample of 200 subjects.

CHAPTER - IV

RESULT ANALYSIS AND DISCUSSION PART - I (Significant Difference)

CHAPTER - IV
Result Analysis and Discussion
Part I
(Significant Differences)

According to the graphologists, handwriting is not only a physical activity but it is an outlet of our emotions, feeling, moods, work-drive and in all personality.

All the graphologists challenge that everything even physical and mental diseases can be detected by the handwriting of the people, but psychologists do not believe handwriting as a scientific measure.

This study is an attempt to prove the reliability of graphology as a scientific instrument of personality measurement.

The 16PF test was administered individually on each of the participants. Obtained raw scores were then converted into sten scores given in standardisation tables provided in test manual. Then second order scoring was done to find our four major personality characteristics, i.e., extroversion, Anxiety, Tough Poise and Independence. Then handwriting pattern was assessed individually with the help of set norms given in the standard books of graphology.

It was hypothesized that there is no significant difference in the handwriting of the introversion Vs extroversion, low Anxiety Vs High Anxiety, Tendermindedness emotionality Vs tough poise group, and subduedness Vs Independence group. For comparing the various graphological patterns

present in both the groups, percentage and critical ratios (C.R.) were calculated which are shown in table 1,2,3 and 4.

HYPOTHESIS :- there is no significant difference in the handwriting of the persons coming in the category of either introversion or extraversion.

TABLE 1

Table showing significant difference, in the percentage of the handwriting patterns, between introversion and extroversion.

$N = 200$, $df = 198$, CR Significant at .05 Level = 1.98^{++}
at .01 Level = 2.61^{-}

	Handwriting Pattern	% of Introversion	% of Extroversion	C.R.	Significant
1	Slant	-	-	-	-
A	Vertical	19	23	0.49	N.S.
B	Inclined	22	45	2.44	.5
C	Reclined	45	20	2.66	.1
D	Varying	14	12	0.29	N.S.
2	Baseline	-	-	-	-
A	Straight	25	48	2.91	N.S.
B	Ascending	51	32	1.92	N.S.
C	Descending	12	14	0.29	N.S.
D	Varying	12	6	0.33	N.S.
3.	Margine	-	-	-	-
A	Ideal	32	14	2.33	.5
B	Left M. Wide as it descends	20	44	2.57	.1
C	No. Margine at all	20	20	.0	N.S.
4	Spacing	-	-	-	-
A	Normal	36	29	0.74	N.S.
B	Wide	22	48	2.73	.1
C	Narrow	28	15	2.59	.5
D	Varying	4	8	.089	N.S.
5	Pressure	-	-	-	-
A	Normal	20	22	0.24	N.S.
B	Light	42	18	2.20	.5

C	Heavy	38	60	2.61	.1
6	Size	-	-	-	-
A	Medium	48	48	.0	N.S.
B	Large	20	42	2.39	.5
C	Small	32	10	2.69	.1
7	Speed	-	-	-	-
A	Normal	73	52	2.18	.5
B	Fast	27	48	2.17	.5
8	Zones	-	-	-	-
A	Large Lower Zone	63	37	2.60	.5
B	Balance of three Zone	37	63	2.60	.5
9	Writing Style	-	-	-	-
A	Printing	14	4	1.73	N.S.
B	Cursive	31	73	4.20	.1
C	Print Writing	55	23	3.27	.1
10	Connecting Strokes	-	-	-	-
A	Garlands	45	70	2.52	.5
B	Arcades	18	20	0.25	N.S.
C	Thread	37	10	3.17	.1
11	Work Drive	-	-	-	-
A	Average	49	61	1.20	N.S.
B	Weak	47	37	1.01	N.S.
C	Strong	4	2	0.58	N.S.

RESULTS:- The results given in table '1' show that there are significant differences in the pattern of handwriting between Introversion (sten score below '4') and extraversion (sten score above '6'). The significant difference occurred between the two groups in the areas of (Inclined C.R.=2.44, $P < .05$); (Reclined C.R= 2.66, $P < .01$); Baseline, (Straight, C.R. = 2.91; $P < .01$); Margine, (Ideal, C.R. = 2.13, $P < .05$); (Left Margine wide as it descends, C.R. = 2.57, $P < .05$); Spacing, (Wide, C.R. = 2.73, $P < .01$); Narrow, C.R. = 2.59, $P < .05$); Pressure (Light, C.R. = 2.39, $P < .05$); (Heavy, C.R. = 2.61, $P < .01$); Size Speed, (Normal, C.R. = 2.18, $P < .05$); (Fast, C.R. = 2.17, $P < .05$); Zones, (Large Lower Zone, C.R. = 2.60, $P < .05$); (Balance of three zone, C.R. = 2.60, $P < .05$); Writing Style,

(Cursive, C.R. = 4.20, P<.01); (Print-writing, C.R. = 3.27, P<.01); Connecting Strokes, (Garlands, C.R. = 2.52, P<.05); (Thread, C.R. = 3.67, P<.01);.

DISCUSSION:- According to the results of 16 P.F. the person who scores low on factor Q1, tends to be shy, self-sufficient, and inhibited in interpersonal contacts (Introvert). The person who scores high on this factor is socially outgoing, uninhibited person, good at making and maintaining interpersonal contacts (Extrovert).

Results shown in table '1' reveal the fact that 45% extraverts have inclined slant in their handwriting in comparison to 22% introverts, this difference is significant at .05 level of significance. 45% Introverts have reclined slant in comparison to 20% extraverts. This difference is also significant at .01 level of significance.

This concludes that extraverts have Inclined slant while introverts have reclined slant in their handwriting. Inclined slant means extroverted, communicative, expressive, sensitive and future and goal-oriented etc, while Reclined slant means introverted, unfriendly, non-communicative, insensitive, independent, fearful and depressed etc.

In the area of Baseline 48% extraverts possess straight baseline in comparison to 25% introverts. This difference is significant at .01 level of significance. 51% Introverts possess ascending baseline in comparison to 32% extraverts. Although this difference is not significant but this shows clearly that 48% extraverts possess straight baseline while introverts possess ascending baseline.

Straight baseline reflects the consistent and controlled behaviour exhibited by the writer, at least on the surface. Ascending baseline means healthy mental energy and indicates someone who wants to stay busy.

In the area of margin, 32% of introversion group in comparison to 14% of extraversion group leave ideal margin and this difference is significant at .05 level of significance. 44% of extraversion group in comparison to the 20% introversion group leave left margin wide as it descends, this difference is also significant at .05 level of significance.

This indicate that introversion group have 'Ideal margin' while extraversion group have left margin wide as it descends.

Ideal margin means healthy relation to the past and future. Left margin wide means making haste in reaching the goal.

In the area of spacing 48% extraverts leave wide space while writing in comparison to 22% introverts. This difference is significant at .01 level of significance. 38% introverts leave narrow space in comparison to 15% extraverts. This difference is significant at .05 level.

This indicates that extraverts leave wide space between words or letters while introverts leave Narrow space between words and letters. Wide space indicates broad-mindedness, uninhibited, out going, while narrow space shows narrow mindedness, inhibited, self-control, tense etc.

In the area of pressure 42% of introversion group as against 18% of extraversion group write with light pressure, this difference is significant at .05 level, on the contrary 60% of extraversion group as against 38% of introversion

group have heavy pressure and this difference is significant at .01 level of significance.

Light pressure means, sensitive, tender and perceptive, weak will power, more tolerant, submissiveness. Heavy pressure means feeling active, forceful, more aggressive than passive.

In the area of size 42% of extraversion group, as against 20% of introversion group have, 'Large Size'. This difference is significant at .05 level of significance. 32% of introversion group have small size in comparison to 10% of extraversion group. This difference is significant at .01 level of significance.

Large writing means feeling socially extroverted, bold, aggressive, big planners, while small writing means holding himself tightly to a limited area.

In the area of speed 73% of introversion group in comparison to 52% of extraversion group have, "Normal Speed", and this difference is significant at .05 level of significance. 48% of extraversion group in comparison to 27% of introversion group have, 'fast speed' of writing, this difference is significant at .05 level of significance.

This shows that introverts have Normal Speed, indicating a Balanced personality while extraverts have fast speed indicating intelligence, spontaneity and outgoing, very fast in thought and action etc.

In the areas of zones 63% of introversion group have, 'Large Lower Zone' in comparison to 37% of extroversion group. This difference is significant

at .05 level of significance. 63% of extroverts have, 'Balance of three Zone', in comparison to 37% of introverts. This difference is significant at .05 level of significance.

'Large Lower Zone' means restless and in constant need of variety and change. 'Balance of Three Zone', means organized, balanced, poised and planner.

In the area of writing style 73% of extroverts have 'Cursive' writing, in comparison to 31% of introverts. This difference is significant at .01 level of significance 55% introverts in comparison to 23% extroverts write, 'Print-Writing'. This difference is significant of .01 level of significance.

Cursive writing means the writer is highly sequential in thought and action, he does not want to stop print-writing means hiding one's personality from others.

In the area of connecting strokes 70% extroverts possess, 'Garlands', in comparison to 45% introverts. This difference is significant at .05 level of significance. 37% introverts possess, 'thread' in comparison to 10% extroverts. This difference is significant at .01 level of significance.

This indicates the fact that 70% extroverts have Garlands in their connecting strokes which is the symbol of friendship, while 37% introverts have thread in their connecting strokes which is the symbol of deviousness, sneakiness and evasiveness etc.

Since both the groups are showing significant difference in a few handwriting patterns. Hence our hypothesis is partially rejected.

HYPOTHESIS :- There is no significant difference in the handwriting of the persons coming in the category of either low or high Anxiety.

TABLE 2

Table showing significant difference, in the percentage of the handwriting patterns, between High and Low Anxiety.

	Handwriting Pattern	% of Low Anxiety	% of High Anxiety	C.R.	Significant
1	Slant	-	-	-	-
A	Vertical	44	25	2.00	.5
B	Inclined	20	45	2.59	.5
C	Reclined	20	18	0.25	N.S.
D	Chainging	16	12	0.57	N.S.
2	Baseline	-	-	-	-
A	Straight	35	33	0.20	N.S.
B	Ascending	52	39	1.29	N.S.
C	Descending	8	16	1.18	N.S.
D	Chainging	5	12	1.19	N.S.
3.	Margine	-	-	-	-
A	Ideal	35	15	2.34	.5
B	Left M. Wide as it descends	20	28	0.9	N.S.
C	L.M. Narrow as it descends	18	46	2.90	.1
D	No. Margine at all	13	7	1.01	N.S.
4	Spacing	-	-	-	-
A	Normal	49	23	2.72	.1
B	Wide	33	32	0.02	N.S.
C	Chainging	5	7	.040	N.S.
D	Narrow	13	38	2.75	.1
5	Pressure	-	-	-	-
A	Normal	17	18	0.12	N.S.
B	Light	38	12	3.08	.1
C	Heavy	40	62	2.17	.5

D	Chainging	5	8	0.58	N.S.
6	Size	-	-	-	-
A	Normal	60	42	1.78	N.S.
B	Large	20	40	2.40	.5
C	Chainging	20	18	0.25	N.S.
7	Speed	-	-	-	-
A	Normal	68	60	0.81	N.S.
B	Fast	32	40	0.81	N.S.
8	Zones	-	-	-	-
A	Large Lower Zone	28	48	2.01	.5
B	Balance of three Zone	72	52	0.20	N.S.
9	Writing Style	-	-	-	-
A	Printing	12	10	0.31	N.S.
B	Cursive	58	40	1.78	N.S.
C	Print Writing	30	50	2.00	.5
10	Connecting Strokes	-	-	-	-
A	Garlands	65	48	1.7	N.S.
B	Arcades	12	25	1.61	N.S.
C	Angle	5	10	0.96	N.S.
D	No. Connecting Strokes	18	17	0.12	N.S.
11	Work Drive	-	-	-	-
A	Average	52	63	1.10	N.S.
B	Weak	48	37	1.09	N.S.

RESULTS :- The results given in table '2' show that there are significant differences in the pattern of handwriting between low and high anxiety groups. The significant differences accured between the two groups in the areas of slant, vertical (C.R. = 2.00, P < .05), Inclined (C.R. = 2.59, P < .05), Margine, Ideal (C.R. = 2.34, P < .05), left margine narrow as it descends (C.R. = 2.90, P < .01), Narrow spacing (C.R. = 2.75, P < .01), Pressure, Light, (C.R. = 3.08, P < .01), Heavy, (C.R. = 2.17, P < .05) size, Large, (C.R. = 2.40, P < .05), Zones, Long Lower Zone, (C.R. = 2.01, P < .05).

DISCUSSION :- According to the results of 16PF, the person who scores low on factor Q2 tends to be generally satisfying, able to achieve those things that seem to him to be important. Extremely low score can mean lack of motivation

for difficult tasks (Low Anxiety). The person who scores high on this factor seems to be neurotic, maladjusted, dissatisfied (very High Anxiety) is generally disruptive of performance and productive of physical disturbances.

Results shown in table '2' reveal the fact that 44% of low anxiety group have, 'vertical slant' in their hand writing in comparison to 25% of high anxiety group. This difference is significant at .05 level of significance 45% of high anxiety group have Inclined slant in comparison to 20% of low anxiety group. This difference is significant at .05 level of significance.

This concludes that low anxiety group has vertical slant while, high anxiety group has Inclined slant vertical slant means Ambivert, Independent, self-controlled etc. while Inclined slant means extrovert, communicative, expressive and courageous.

In the area of margin 35% of low anxiety group as against 15% of high anxiety group have 'Ideal Margin'. This difference is significant at .05 level of significance on the contrary 46% of high anxiety group as against 18% of low anxiety group have 'Left Margin' narrow as it descends and this difference is significant at .01 level of significance.

Ideal margin means healthy relation between the past and future, while "left margin narrow as it descends", means a tendency to start out brave, going toward the future, but eventually retreat to the past and what is familiar.

In the area of spacing 49% of low anxiety group have, 'Normal Spacing' in comparison to 23% of high anxiety group. This difference is significant at .01 level of significance. 38% high anxiety group have, 'Narrow Spacing' in

comparison to 13% of low anxiety group. This difference is also significant at .01 level.

This indicate the fact that low anxiety group have normal spacing in their handwriting which means physical and mental contact, acceptable to all others, flexibility and balanced personality. High anxiety group have narrow spacing in their handwriting which means, self centered, wants close interaction with environment and society, cautious and introverted etc.

In the area of pressure 38% of low anxiety group have, 'Light Pressure', in comparison to 12% of high anxiety group. This difference is significant at .01 level of significance. 62% of high anxiety group have, 'heavy pressure', in comparison to 40% of low anxiety group. This difference is significant at .05 level of significance.

Light pressure means feeling passive, weak will power, more tolerant, delicate etc., while 'heavy pressure' means aggressive, success oriented, feeling active, energetic and go-getters etc.

In the area of size of letter 40% of high anxiety group have, 'large size', in comparison to 20% of low anxiety group. This difference is significant at .05 level of significance. Large size means bold, aggressive, extroverted, expensive with their movements etc.

In the area of zone 48% of high anxiety group have, 'Long Lower Zone', in comparison to 25% of low anxiety group. This difference is significant at .05 level of significance. 72% of low anxiety group have 'Balance of Three Zone', in comparison to 52% of high anxiety group. This difference is not significant at

any level of significance but it can be said that high anxiety group have long lower zone, which means job hoppers, the mate hoppers, need, home life, and healthy body, while low anxiety group have balance of three zone which means perfect healthy adults.

In the area of writing style 30% of low anxiety group have print writing in comparison to 50% of high anxiety group. This difference is significant at .05 level of significance.

Print writing means hiding one's personality from others.

Since both the groups are showing significant difference in a few handwriting patterns. Hence our hypothesis is partially rejected.

HYPOTHESIS :- There is no significant difference in the handwriting of the persons coming in the category of either Tough-poise or Tendermindedness.

TABLE 3

Table showing significant difference, in the percentage of the handwriting patterns, between Tenderminded emotionality and Tough Poise.

	Handwriting Pattern	% of Tederminded	% of Tough Poise	C.R.	Significant
1	Slant	-	-	-	-
A	Vertical	43	24	1.91	N.S.
B	Inclined	13	36	2.33	.5
C	Reclined	37	24	1.33	N.S.
D	Chaining	7	16	1.22	N.S.
2	Baseline	-	-	-	-

A	Straight	30	36	0.18	-
B	Ascending	47	43	2.53	.5
C	Descending	10	14	2.58	.5
D	Chainging	13	7	0.97	N.S.
3.	Margine	-	-	-	-
A	Ideal	16	20	0.47	N.S.
B	Left M. Wide as itdes.	13	29	1.72	N.S.
C	L.M. Narrow as itdes.	36	10	3.13	.1
D	No. Margine at all	33	17	1.78	N.S.
4	Spacing	-	-	-	-
A	Normal	60	57	0.30	N.S.
B	Wide	30	31	0.10	N.S.
C	Narrow	7	6	0.09	N.S.
D	Chainging	3	6	0.27	N.S.
5	Pressure	-	-	-	-
A	Normal	33	36	0.29	N.S.
B	Light	36	12	2.81	.1
C	Heavy	24	45	1.99	.5
D	Uneven	7	7	0	N.S.
6	Size	-	-	-	-
A	Medium	40	61	1.94	N.S.
B	Large	43	20	2.39	.5
C	Small	7	5	0.18	N.S.
D	Chainging	10	14	0.55	N.S.
7	Speed	-	-	-	-
A	Normal	77	57	1.91	N.S.
B	Fast	23	43	1.91	N.S.
8	Zones	-	-	-	-
A	Large Upper Zone	6	8	1.60	N.S.
B	Large Lower Zone	53	43	0.92	N.S.
C	Balance of three Zone	47	49	0.18	N.S.
9	Writing Style	-	-	-	-
A	Printing	7	10	0.48	N.S.
B	Cursive	40	62	2.04	.5
C	Print Writing	53	28	2.41	.5
10	Connecting Strokes	-	-	-	-
A	Garlands	24	55	2.87	.1
B	Arcades	23	17	0.70	N.S.
C	Angle	33	12	2.50	.5
D	No. Connecting Strokes	20	16	0.48	N.S.
11	Work Drive	-	-	-	-

A	Average	63	53	0.93	N.S.
B	Weak	37	47	0.92	N.S.

RESULTS :- The results given in table '3' show that there are significant difference in the pattern of handwriting between tough poise and tenderminded group. The significant difference occurred between the two groups in the area of slant, (Inclined, C.R. = 2.33, P<.05); Baseline, (Ascending, C.R. = 2.53, P<.05); (Descending, C.R. = 3.13, P<.05); Pressure, (Light, C.R. = 2.81, P<.01); (Heavy, C.R.=1.99, P<.05); size, (large, C.R. = 2.39, P<.05); writing style, (cursive, C.R.=2.04, P<.05); (Print-writing, C.R.=2.41, P<.05); connecting strokes, (Garlands, C.R. = 2.87, P<.01); (Angles, C.R.=2.50, P<.05).

DISCUSSION :- Psychographological results shown in table '3' reveal the fact that 13% persons of tenderminded group and 36% persons of tough poise group have Inclined slant. This difference is significant at .05 level and concludes that tough poise people have more Inclined slant. Inclined slant means affectionate, friendly, sensitive, jealous, courageous, future and goal oriented etc.

In the area of baseline 47% of tenderminded group in comparison to 22% of tough poise group write with ascending baseline and this difference is significant at .05 level of significance 35% of tough poise group in comparison to the 10% of tenderminded group write with descending baseline this difference is also significant at .05 level of significance.

This concludes that tenderminded group has ascending baseline, which means healthy mental energy, active and stay busy attitude etc., while tough poise group has descending baseline which means fatigue, discouragement or illness etc.

In the area of margin 36% of tenderminded group as against 10% of tough poise group, have, "left margin narrow as it descends". This difference is significant at .01 level of significance. In the category of 'left margin wide as it descends', the percentage of tenderminded group is 13% as against 24% of tough poise group, "left margin wide", indicates haste to make a point or reach the goal, ardor, optimism and nervousness etc.

In the area of pressure 36% of tenderminded group against 12% of tough poise group have light pressure, this difference is significant at .01 level of significance. On the contrary 45% of tough poise people as against 24% of tenderminded people have, 'heavy pressure', and this difference is significant at .05 level of significance. Light pressure means delicate feelings, sensitive personality, weak will power, more tolerant etc. while heavy pressure means success oriented, have tempers, have a big ego are altruistic towards their family.

In the area of size 43% of tenderminded group have large size of writing in comparison to 20% of tough poise group. This difference is significant at .05 level of significance. Large size means bold, aggressive, confident, strongly motivated, directs others and extroverted etc.

In the area of writing style 62% tough poise group possess cursive writing in comparison to 40% tenderminded group. This difference is significant at .05 level of significance. 53% tenderminded group possess print writing in comparison to 28% tough poise group. This difference is also significant at .05 level of significance.

Cursive writing means highly sequential in thought and action. While print-writing means hiding one's personality from others.

In the area of connecting strokes 55% of tough poise group have garlands in comparison to 29% of tenderminded group. This difference is significant at .01 level of significance. 33% of tenderminded group have angles in their handwriting in comparison to 12% of tough poise group. This difference is also significant at .05 level of significance.

This concludes that tough poise group is friendly, sociable, flexible, ready to establish a link with others. While tough poise group have angles which means aggressive, competitive, stubbornness and serious etc. Here the handwriting characteristics do not match with the personality.

Since both the groups are showing significant difference in a few handwriting patterns. Hence our hypothesis is partially rejected.

HYPOTHESIS :- There is no significant difference in the handwriting of the persons coming in the category of either subduedness and Independent group.

TABLE 4

Table showing significant difference, in the percentage of the handwriting patterns, between Subduedness and Independent group.

	Handwriting Pattern	% of Sub-duedness	% of Independent	C.R.	Significant
1	Slant	-	-	-	-
A	Vertical	27	44	1.66	N.S
B	Inclined	38	14	2.76	.1

C	Reclined	14	33	2.04	.5
D	Chainging	21	9	1.70	N.S
2	Baseline	-	-	-	-
A	Straight	33	34	0.10	N.S
B	Ascending	40	47	0.67	N.S
C	Descending	21	9	1.70	N.S
D	Chainging	6	10	0.56	N.S
3.	Margine	-	-	-	-
A	Ideal	15	21	0.72	N.S.
B	Left M. Wide as it des.	33	21	1.32	N.S.
C	L.M. Narrow as it des.	6	10	0.56	N.S.
D	No. Margine at all	27	19	0.92	N.S.
E	Chainging	6	9	0.35	N.S.
4	Spacing	-	-	-	-
A	Normal	45	58	1.24	N.S.
B	Wide	32	31	0.10	N.S.
C	Narrow	14	6	1.35	N.S.
D	Chainging	9	5	0.78	N.S.
5	Pressure	-	-	-	-
A	Normal	25	31	0.63	N.S.
B	Light	42	18	2.61	.1
C	Heavy	24	45	2.06	.5
D	Chainging	9	6	0.56	N.S.
6	Size	-	-	-	-
A	Medium	52	43	0.86	N.S.
B	Large	21	44	2.27	.5
C	Small	9	3	1.31	N.S.
D	Chainging	18	10	1.41	N.S.
7	Speed	-	-	-	-
A	Normal	64	61	0.28	N.S.
B	Fast	36	39	0.29	N.S.
8	Zones	-	-	-	-
A	Large Upper Zone	0	9	1.80	N.S.
B	Large Lower Zone	45	46	0.09	N.S.
C	Balance of three Zone	55	45	0.95	N.S.
9	Writing Style	-	-	-	-
A	Printing	18	4	2.38	.5
B	Cursive	30	60	2.86	.1
C	Print Writing	52	36	1.55	N.S.
10	Connecting Strokes	-	-	-	-
A	Garlands	55	58	2.38	N.S.

B	Arcades	15	25	2.86	N.S.
C	Angle	0	7	1.58	N.S.
D	No. Connecting Strokes	30	10	2.56	.5
11	Work Drive	-	-	-	-
A	Average	61	52	0.86	N.S.
B	Weak	39	43	0.38	N.S.
C	Strong	0	5	1.32	N.S.

RESULTS :- The result in table '4' show that there are significant differences in the pattern of handwriting between subduedness and Independent group. The significant differences occurred between the two groups in the are of slant, (Inclined, C.R. = 2.76, P<.01); (Reclined, C.R. = 2.04, P< .05 level); Pressure, (Light C.R. = 2.61, P< .01 level); (Heavy, C.R. = 2.06, P< .05 level); size, (large, C.R. = 2.27, P<.05 level), writing style, (Cursive, C.R. = 2.86, P< .01 level); (Printing, C.R. = 2.38, P< .05 level); connecting strokes, (No connecting strokes, C.R. = 2.56, P< .05 level).

DISCUSSION :- Psychographological results shown in table '4' revel the facts that 30% of subduedness group in comparison to 14% of Independent group have indclined slant. This difference is significant at .01 level of significance 33% Independent group in comparison to 14% of subduedness group have 'Reclined slant'. This difference is also significant at .05 level of significance.

Inclinded slant means communicative, courageous, sensitive, future and goal oriented, while Reclined slant means introvert, suspicious unfriendly, non-communicative, anxious, independent, 'hides from life', fearful, and depressed etc.

In the area of pressure 42% of subduedness group against 18% of Independent group have, 'Light Pressure'. This difference is significant at .01 level of significance. On the contrary 45% of Independent group against 24% of subduedness group have 'heavy pressure', and this difference is also significant at .05 level of significance.

Light pressure means fragile, delicate feelings, sensitive personality, weak will power, more tolerante etc. while heavy pressure means aggressive, possessive, go-getters and success-oriented etc.

In the area of size 21% of subduedness group have, 'Large Size', in comparison to 44% of Independent group. This difference is significant at .05 level of significance, which means bold, aggressive thinks 'big' confident, strongly motivated and directs others, needs people, enthusiastic, and optimistic etc.

In the area of writing style 18% of subduedness group against 4% of Independent group, have 'Printing' in their writing. This difference is significant at .05 level of significance. In the category of cursive writing the percentage of Independent group is 60% while subduedness group is 30%. This difference is also significant at .01 level of significance.

'Printing' writing means a hidden, wish to cover one's own real personality and identity, while 'Cursive' writing means writer is highly sequential in thought and action, he does not want to stop.

In the area of connecting strokes 30% of subduedness group have 'No Connecting Strokes' in comparison to 10% of independent group. This difference is significant at .05 level of significance. "No connecting strokes" is one of the most effective ways to hide your personality from others.

Since both the groups are showing significant difference in a few handwriting patterns. Hence our hypothesis is partially rejected.

RESULT ANALYSIS
AND
DISCUSSION PART II
(Set of Graphological Patterns for
Different Personality Types)

Result Analysis and Discussion

Part II (Set of Graphological Patterns for Different Personality Types)

HYPOTHESIS :-

There is no set of combination of handwriting traits for each of the second order scoring factors of 16 PF. Test.

DISCUSSION :-

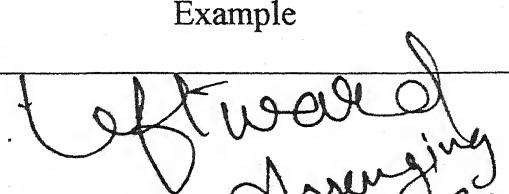
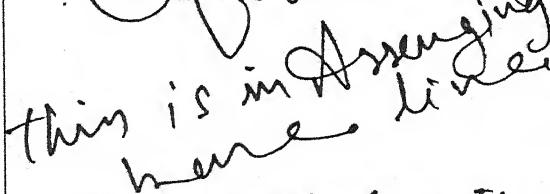
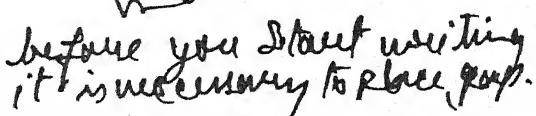
In order to find out the set pattern of handwriting of the persons belonging to each group, Handwriting was analyzed individually. On the basis of highest percentage of persons falling in each pattern of handwriting a set was formed for each group. It was found that each category has a separate set of combination of patterns. Further it was attempted to find out whether these sets matched with the type of personality or not. The analysis is given as follows.

TABLE – 5(A)

Introversion

(Sten Score 0 – 4)

Table showing the set of combination of Graphological patterns of the subjects belonging to introversion group.

Set of Graphological Patterns for Introversion	Example
Reclined Slant	
Ascending Baseline	
Ideal Margine	

Narrow Spacing	A narrow spacing writing is a form of writing in which a light pressure is this.
Light Pressure	
Normal Speed	Today today is Sunday
Small Writing (Size)	Small writing size is a size in which letters are too small.
Long Lower Zone	Today today I am happy.
Print – Writing	Today today I am happy.
Threading	
Weak Work Drive	happiness is not free always with us.

As shown in table '5' the introvert group has in its handwriting Reclined slant, ascending baseline, ideal margin, narrow spacing, light pressure and small size of letters. Their speed of writing is normal, lower zone is large, writing style is print-writing, work drive is weak and connecting stroke is threading and work drive is weak. If we go through all these specifications and analyse them, it will be obvious that these patterns match with their personality type. The graphological analysis and meaning is given as below :-

1. **Reclined slant** :- Reclined slant means back handed writing. The words that best describe slanting to the left are negative, past, loner, fear, inhibited, resistance, doubt, self, repression, shy, introverted, anxiety, independent etc.

2. **Ascending Baseline** :- Ascending Baseline is that goes uphill all the way to the last letter and does not drop off the ends of the lines. Uphill writing means healthy mental energy and indicates someone who wants to stay busy.
3. **Ideal Margine** :- The ideal margine, based upon graphology would be, to have the left margine wider than the right margine. This would be a healthy left-right balance, meaning you have a healthy relation to the past and future.
4. **Narrow spacing** :- Means spacing between words and lines and letters is close to each other. It means selfish, suspicious, introverted etc.
5. **Light Pressure** :- Pressure is the amount of force you exert while writing – how hard or soft you press on the pen or pencil. Light pressure means delicate feelings, sensitive personality, weak will power etc.
6. **Small Size** :- Script or size of letters paints a picture of how relatively small or large our thoughts and life experiences are small size most often means introversion.
7. **Long Lower Zone** :- Lower Zone represents the Id, the past, the lower body. Determines physical and sexual drives and need desire for money.
8. **Print Writing** :- A combination of printing and cursive called disconnected or “Print-Writing”. People who do print-writing with efficient breaks means intelligence, speed, efficiency, directness, simplification etc.
9. **Threading** :- Threading is just squiggling out the letter so the reader can not see what they really are. It means they do not know how to spell a word or feeling, dishonest, don't want others to see what they are saying.
10. **Normal Speed** :- The speed of a writing tells how quickly an individual thinks and acts, the person's intelligence level, and his degree of spontaneity and honesty. Normal speed means everything in writing is normal and nothing is unusual about the writer.
11. **Weak Work Drive** :- Measuring work drive graphologist take in to account four separate aspects, the height, length, pressure and the angle of the

crossing of 't' bars etc. Sign of weak work drive is low crossing, short length, light pressure and angled crossing. It means weak will power, drive and ambition etc.

According to the psychologist an introvert person is one who is shy, self-sufficient and inhibited in interpersonal contacts.

Webster's dictionary defines introversion as "A tendency to direct one's interest upon oneself rather than external objects or events, or propensity for finding one's satisfaction in the inner life of thought and fantasy". An introvert is defined as "A shy person, a person characterized by concern with his own thoughts and feelings". Generally the following can be said of introverts.

1. They prefer to be alone or in small groups and do not need or want many friends.
2. They tend to seek out careers where they do not have to meet and greet the public.
3. They don't seek attention in group situation.
4. They tend to be inhibited, restrict their movements and gestures, and dress in a subdued fashion.
5. They tend to limit their travelling and stay in one place for longer periods.
6. They display greater fears and apprehensions than extroverts.
7. They are inclined to suffer from internalizing their feelings by getting anxiety – related diseases such as migraines, ulcers, colitis and certain heart diseases.
8. Most introverts prefer to work early in the morning as opposed to late at night.

TABLE – 6(A)

Table showing comparison between psychological characteristics of 'Introversion' given by 16PF Test and Analysis of the attained graphological patterns of the subjects belonging to that group.

(Introversion)

Psychological Analysis according to 16P.F.	Analysis of graphological pattern of the Subject
Fear	Fear
Anxiety	Anxiety
Don't want other	Don't want other
Shy	Shy
Loner	Loner
Inhibited	Inhibited
Dress to subdued fashion	Simplification

(N.B. – Symptoms, shown in both the categories are based on the results.)

If we compare the analysis of all the graphological patterns with meaning of the term (Introversion) given by different psychologist as shown in table '6' we can easily find out the fact that our hypothesis is rejected. The handwriting of all the subjects coming in the group of introversion contain all those set of graphological patterns which make them introvert people.

TABLE – 5(B)

(Extroversion)

(Sten Score above 6-10)

Table showing the set of combinations of graphological patterns of the subjects belonging to "Extraversion group".

Set of graphological Patterns for extroversion group	Example
Inclined Slant	<i>Rightward</i>
Straight Baseline	<i>this is a straight base line though out.</i>
Left margin wide as it descends	<i>A left margin that widens as it descends</i>
Wide spacing	<i>means rapidly</i>
Heavy pressure	<i>day how are</i>
Fast speed	<i>this you is too much.</i>
Large writing	<i>I am, Sir</i>
Balance of three zone	<i>Hello Hello</i>
Cursive writing	<i>may I come in Sir.</i>
Garlands	<i>water is very imp-</i>
Average work Drive	<i>-tent.</i>
	<i>Certical class.</i>
	<i>Hello how are you.</i>

As shown in table '7' the extrovert group has in its handwriting Inclined slant, straight baseline, left margin wide as it descends and wide spacing. Their pressure is heavy, fast speed, large writing and balance of three zones, writing

style is cursive, they use garlands as connecting strokes and work drive is average. The graphological analysis is given as below :-

1. **Inclined Slant** :- Inclined slant means slanting to the right, it means extroverted, warm personality, expressive, need to be with others, affectionate and communicative etc.
2. **Straight Baseline** :- The straight baseline reveals someone who is stable in outward behaviour even keeled level.
3. **Left Margin wide as it descends** :- It means rapid and spontaneous writing. In your haste to make a point and reach a goal.
4. **Wide spacing** :- Wide spacing means tendency for isolation, fear of contacts and closeness, hostile, extravagant, broadminded, extroverted and out going etc.
5. **Heavy Pressure** :- Means the writer is bearing down, feeling intense, aggressive, feeling active etc.
6. **Fast Speed** :- Associated with intelligence and spontaneity, quick-minded etc.
7. **Large Size (Writing)** :- Large writing means feeling socially extroverted, expensive with their movements and unwilling to concentrate or confine their movements to small details.
8. **Balance of three zone** :- Means healthy adults.
9. **Cursive Writing** :- Connecting writing means that the writer is highly sequential in thought and action, he does not want to stop.
10. **Garlands** :- Means roundness, associated with openness, friendliness, outgoing etc.
11. **Average work drive** :- Most people have medium t bars in all respects medium crossing and straight line across and thus, have average work drive and ambition.

According to the psychologists an extrovert person is one who is socially outgoing, uninhibited person, good at making and maintaining interpersonal contacts.

Webster's dictionary defines extroversion as, "In psychology, an attitude in which a person directs his interests to phenomena outside himself rather than to his own experiences and feeling". An extrovert is define as a "Person whose interest is more in his environment and in other people than in himself, a person who is active and expressive, or other than introspective".

Generally the following can be said of extroverts.

1. They need friends and make them readily than introverts.
2. They tend to seek out careers that allow them to interact frequently with others.
3. They make their presence known more obviously than introverts in group situations.
4. They tend to be expensive in their body movements, gesture often and dress more colourfully than introverts.
5. They tend to travel farther and move more often than introverts.
6. They display less fear and apprehension than introverts.
7. They are less inclined to suffer from migraines, ulcers, colitis and certain types of heart disease than are introverts.
8. Most extroverts prefer to work late at night as opposed to early in the morning.

TABLE – 6(B)

Table showing comparison between psychological characteristics of 'Extroversion' given by 16PF and graphological analysis of the subjects belonging to that group.

Psychological Analysis according to 16 PF Test.	Analysis of graphological pattern of the subject
Socially outgoing	Social extroverted
Out going	Out going
Expressive	Expressive
Expensive	Expensive
Need friends	Need to be with others
Active	Quick minded
Like colourful dresses	Affectionate
Takes more interest in his Surrounding and other People than himself.	Broadminded X X

(N.B. – Characteristics shown in both the categories are based on the results.)

If we compare the analysis of all the graphological patterns with the meaning of the term (extroversion) given by different psychologists, we can easily find out the fact that our hypothesis is rejected. The handwriting of all the subjects coming in the group of extroversion contain all those set of graphological patterns which make them extrovert people.

TABLE - 5(C)

(Low Anxiety Group)

Table showing the set of combinations of graphological patterns of the subjects belonging to "Low Anxiety group".

Set of graphological patterns for low anxiety group.	Example
Vertical slant	people can be try to wake up me.
Ideal margin	before you start writing it- is necessary to place gap.
Normal spacing	Some time we wakes up early in the morning.
Light pressure	And then I return Back.
Normal writing (size)	This is medium size. this is small size.
Normal speed	if you wakes your money then it is not true.
Balance of three zone	Cursive writing foolman
Cursive writing	tell me where am I today
Garlands	
Weak work drive	

The persons who come in the low anxiety group have in their handwriting vertical slant, Ideal margin, Normal spacing, Normal size and Normal speed. Their zones are balanced, writing style is cursive, make garlands, Light pressure and work drive is weak.

If we go through all these specification and analyse them, it will be obvious that these pattern match with their personality type. The graphological analysis and meaning is given below :-

1. **Vertical Slant** :- Characteristics are the median between the right and left slant, Ambivert, Independent, secure, self-reliant, self-controlled etc.
2. **Ideal Margine** :- Means you have healthy relation to the past and future.
3. **Normal Spacing** :- Flexibility, balanced personality, ability to make friends and be close to others.
4. **Light Pressure** :- Means delicate feelings, sensitive personality, weak will power etc.
5. **Normal Size** :- Means feeling normal, social and who has an average ability to concentrate.
6. **Normal Speed** :- The speed of a writing tells how quickly an individual thinks and acts, the persons intelligence level and his degree of spontaneity and honesty normal speed means everything in writing is normal and nothing is unusual about the writer.
7. **Balance of three Zone** :- Means Healthy adults.
8. **Cursive Writing** :- Means writer is highly sequential in thought and action, he doesn't want to stop.
9. **Garlands** :- Means the writer is friendly, sociable, affectionate, flexible and communicative easily.
10. **Weak Work Drive** :- Weak work drive means the weaker the will power, Laziness, Low level of aspiration, Low ambition etc.

According to the psychologist the person who come in "Low Anxiety Group" are generally satisfying and are able to achieve those things that seem to be important unlike high anxiety group these people are easy going and always maintain, calm and balanced emotionality even in the time of stress and tension.

TABLE-6(C)

Table showing comparison between psychological characteristics of "Low Anxiety Group" given by 16PF test and graphological pattern of the subjects belonging to that group.

Psychological Analysis according to 16 PF	Analysis of graphological Pattern of the subjects
Achieve important things	Achieve there goals
Easy going Satisfying	Flexible
X	Self controlled
X	Balanced personality
Balanced	Sensitive personality
	Healthy relation between past and future

(N.B. – Characteristics shown are on the basis of results.)

If we compare the analysis of all the graphological patterns with the meaning of the term (Low Anxiety) given by different psychologists, we can easily find out the fact that our hypothesis is rejected. The handwriting of all the subjects coming in the group of low anxiety, contain all those set of graphological patterns which make them "Low Anxiety People".

Table - 5(D)

(High Anxiety Group)

Table showing the set of combinations of graphological patterns of the subjects belonging to the "High Anxiety Group".

Set of graphological patterns for High Anxiety group	Example
Inclined slant	<i>Right wised</i>
Left Magine Narrow	<i>anything is very easy task but - very important in our life.</i>
Heavy pressure	<i>I means you are brilliant.</i>
Large writing	<i>Some One is naughty.</i>
Fast Speed	<i>I am I shoving say who are</i>
Long lower zone	<i>Print you writing</i>
Print writing	<i>Some</i>
Arcades	<i>tatanic is a true film.</i>
Average work drive	

The high anxiety group have in their handwriting Inclined slant, Left margin Narrow, Narrow spacing, Heavy pressure and Large Size. Their speed

of writing is fast. In contrast with the low anxiety group their lower zone is large, writing style is print-writing. They use arcades as connecting strokes and work drive is average.

The graphological analysis is given as below :-

1. **Inclined Slant** :- Extrovert, Sensitive, Courageous, future and goal oriented, need to be with others.
2. **Left Margine Narrow** :- Tendency of start out brave, going toward the future, but eventually retreat to the past and what is familiar and loos spontaneity.
3. **Narrow Spacing** :- Means person is feeling extremely uptight and narrow minded, not open, fear of isolation and tense posture etc.
4. **Heavy Pressure** :- Means aggressive, success oriented, have tempers, big ego, are altruistic toward their family may even be violent, tend to have high blood pressure.
5. **Large Size** :- Bold, aggressive, extroverted and exaggerated manner, restless want and need attention.
6. **Fast Speed** :- Intelligence and spontaneity.
7. **Long Lower Zone** :- Long lower zone is usually restless and in constant need of variety and change, job hoppers etc.
8. **Print-Writing** :- Print-writing is the mixture of printing and cursive writing. People who do print-writing with efficient breaks means intelligence, speed, efficiency, directness and simplification etc.
9. **Arcades** :- Means a desire to cover up, control to pretend to live by rule rather than live one's own life. The arcades maker is the hypocrite who has something to hide.

10. **Average Work Drive** :- Most people have median 't' bare in all respects and, thus, have average work drive, ambition and will power.

According to the psychologists, Anxiety is the state of tension arising from the experience of disapproval in interpersonal relationship. It is a state of arousal caused by threat to well being. Hence the person who falls in high anxiety group is always restless, depressed, tense, in a state of arousal feeling insecurity for future and holds essential apprehension cued off by a threat to some value to his existence as personality.

Table - 6(D)

Table showing comparison between psychological characteristics of "High Anxiety Group" given by 16PF and graphological pattern of the subjects belonging to that group.

Psychological Analysis according to 16 P.F	Analysis of graphological pattern of the subjects
Tense	Tense
Sensitive	Sensitive
Restless	Restless
fear of dying	Fear of isolation
Stress	High blood pressure
Depressed	Success- oriented
Dissatisfied	Aggressive
Loss of interest and motivation	Lack of motivation
X	Simplification
X	Extroverts.

(N.B. - Symptoms, coming in both the categories are based on the results.)

Graphological patterns of this group reveal the same characteristics as described by different psychologists, thus it can be said that high anxiety can be detected through graphological patterns also.

Table – 5(E)

Tenderminded Emotionality

Table showing the set of combination of graphological patterns of the subjects belonging to “Tenderminded Emotionality Group”.

Set of the graphological patterns for Tenderminded Emotionality group	Examples
Vertical Slant	
Ascending Baseline	<i>Vertical Slant. this is Ascending baseline.</i>
Left margin Narrow	<i>A left margin that narrow all over the writing in the text.</i>
Light pressure	<i>I Really love you -</i>
Normal Speed	<i>A Small percentage people have normal speed of writing.</i>
Print writing	<i>Dear Friend How are you.</i>
Angles	<i>An Angle is a meeting</i>

The tenderminded emotionality group have in their handwriting vertical slant, Ascending baseline, left margin narrow and light pressure. Their speed of

writing is normal, Large size. Writing style is print writing and they make Angles in their handwriting.

If we go through all these specifications and analyses them, it will be obvious that these patterns match with their personality type. The graphological analysis and meaning is given as below :

1. **Vertical Slant** :- Means Ambivert, Independent, secure, self reliant and self controlled etc.
2. **Ascending Baseline** :- This trait does not necessarily means optimism you could be feeling depressed and optimistic and still be writing uphill. It simply means you will put just as much energy in to your depression as you do into your good moments.
3. **Left Margine Narrow** :- Means fatigue, physical or moral depression, lack of initiative and a sense of thrift which overcomes other considerations.
4. **Light Pressure** :- Means those who write lightly can be sensitive, tender and perceptive. They dislike the unpleasant things of life. The noise and the violence and prefer to concentrate on the finer aspects, but they can fall short of determination and stamina.
5. **Normal Speed** :- Means average intelligence, average energy, morality on a mundane level.
6. **Large Size** :- Means bold, strongly motivated and directs others, approaches life in an extroverted and exaggerated manner, want and needs attention, optimistic etc.
7. **Print-Writing** :- Print – Writing means a combination of printing and cursive, writing print – writing indicates intelligence, speed, efficiency, directness, simplification etc.

8. Angles :- Angles are associated with aggressive individual, competitive, determined, serious about their work and not easily influenced.

Table – 6(E)

Table showing comparison between psychological characteristics of “Tenderminded Emotionality Group” given by 16PF test and graphological pattern of the subjects belonging to that group.

Psychological Analysis according to 16 P.F. /	Analysis of graphological pattern of the subject
Sensitive	Sensitive
Troubled by pervasive emotionality	Depressed
Frustated	Fatigue
Artistic	Average intelligence
Involve too much thought and consideration before action is taken	Optimistic
Discouraged	Serious about their work and not easily influenced
Self controlled	Competitive
Independent	Strongly motivated
	Courageous
	Bold

(N.B. – Characteristics shown in both the categories are based on the results.)

According to the psychologist tenderminded emotionality person is one who is likely to be troubled by pervasive emotionality, and may be discouraged, frustrated type. He is however sensitive of life, likely to be artistic and rather gentle. If he has problems they often involve too much thought and consideration before action is taken.

The characteristics described by psychologist match with the characteristics revealed through the set of combination of graphological patterns.

Table – 5(F)

(Tough – Poise)

Table showing the set of combination of graphological patterns of the subjects belonging to “Tough Poise Group”.

Set of graphological patterns for Tough poise group	Examples
Inclined Slant	<i>Right Careful</i>
Descending Baseline	<i>This is descending</i>
Heavy pressures	<i>some line</i>
Cursive writing	<i>we learnt how to</i>
Garlands	<i>read and write</i>
	<i>approximately</i>
	<i>force</i>

The tough poise group have in their handwriting Inclined slant, Descending baseline, heavy pressure and writing style is cursive. They make garlands in their handwriting. The graphological analysis and meaning is given as below :-

1. **Inclined Slant** :- Means extroverted, sensitive, courageous, future and goal-oriented, need to be with others, always wants. “Some thing going on”, cries and laugh more readily, easily vent feelings.

2. **Descending Baseline** :- Downhill writers are usually negative people. They look on the downside of things. There is some thing wrong. These people are often fatalists attitude of defeat and disillusionment, constant, disappointment etc.
3. **Heavy pressure** : Heavy pressure means the writer is bearing down, feeling intense. He is feeling resolute, assertive, more aggressive than passive. It also means feeling active, energetic, vital alert, forceful and sometimes it means pugnacious.
4. **Cursive Writing** :- People who are connected writers are highly connected thinkers, sequent in thought and action. They are more likely to attempt to follow an orderly procedure and may feel disoriented if they have no definite plan of action for achieving their goals.
5. **Garlands** :- Garlands connectors means the writer is friendly, sociable, ready to establish a link with others, affectionate, flexible and communicates easily.

Table – 6(F)

Table showing comparison between psychological characteristics of “Tough Poise Group” given by 16PF test and graphological pattern of the subjects belonging to that group.

Psychological Analysis of 16 P.F	Analysis of graphological pattern of the subjects
Enterprising	Fatalists
Resilient personality	Feeling active
Rapid action with insufficient	Sequent in thought and action
Consideration and thought	Active

Decisive	Negative people Feeling intense Aggressive Energetic Friendly Sociable Flexible Communicative
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(N.B. – Characteristics shown are on the basis of results.)

According to the psychologists a “Tough Poise Person” is one who is likely to be an enterprising, decisive, and resilient personality. However he is likely to miss the subtle relationship of life and to orient his behaviour too much toward the obvious. If he has difficulties, they are likely to involve rapid action with sufficient consideration and thought.

Surprisingly the set of combination of graphological patterns do not match perfectly with the characteristics described by the psychologists for this group. Hence it may be concluded that for this particular category our hypothesis that, “there is no set of combination of graphological traits for each category,” is proved. Although there is a set of graphological patterns, but this set do not match the characteristics described by the psychologists for tough poise.

Table – 5(G)

(Subduedness Group)

Table showing the set of combination of graphological patterns of the subjects belonging to “Subduedness Group”.

Set of graphological pattern for subduedness group	Examples
Inclined slant	
Descending Baseline	Rightward this is a descending baseline
Light pressure	The Person is happy
Printing (writing)	I am Talking about
No connecting strokes	you
	I am talking
	about you

The persons who come to the subduedness group have in their handwriting Inclined Slant, descending baseline and light pressure. Their writing style is printing and have no connecting strokes. The graphological analysis and meaning is given as below :-

1. **Inclined Slant** :- People whose writing slants to the right come forward to meet other people. They are demonstrative, like to show their feelings and take an active part in life. If the writing has an exaggerated slope, then the heart of the writer almost always rules the head.
2. **Descending Baseline** :- This indicates fatigue, discouragement or illness. These people are often fatalists.
3. **Light Pressure** :- Those who write lightly can be sensitive, tender and perceptive. Weak will power, more tolerant etc.

4. **Printing** :- Printing writing means writer is sociable, aggressive or dishonest. So subconsciously printing is one of the most effective ways to hide your personality from others.
5. **No Connecting Strokes** :- In printing, each letter is separate, and there is no connecting strokes. It means you do wish to reveal your real personality to others.

Table – 6(G)

Table showing comparison between psychological characteristics of “Subduedness Group”, given by 16PF test and graphological pattern of the subjects belonging to that group.

Psychological Analysis According to 16 PF	Analysis of graphological pattern of the subjects
Group dependent	Demonstrative
Chastened	Sociable
Need support	Aggressive
Likely to orient his behaviour	Dishonest
Towards persons who give	Discouragement
Such support	Ibness
Passive personality	Fatalists
	Sensitive
	Weak will power
	More tolerant
	Fatigue

(N.B. – Shown characteristics are based on the results.)

According to the psychologists, subduedness group is one who is - group dependent, chastened and passive personality. He is likely to desire and need

support from other persons and likely to orient his behaviour toward persons who give such support.

Graphological patterns of this group reveal the same characteristics as described by different psychologists. Thus it can be said that "subduedness group" can be detected through graphological pattern of the writer also.

Table – 5(H)

(Independent Group)

Table showing the set of combination of graphological patterns of the subjects belonging to "Independent group".

Set of graphological pattern for Independent group	Examples
Reclined slant	Left -ward
Ascending Baseline	this is an of ^{slanting} line
Heavy pressure	it can ^{more} reveal
Cursive writing	Combination
Large size	This is large

Independent group have in their handwriting Reclined slant, Ascending baseline and Heavy pressure. Their size of writing is large and writing style is cursive. The graphological analysis and meaning is given as below :-

1. **Reclined Slant** :- (Back handed writers) cautious, suspicious, introverted, unfriendly, independent, hides from life, fearful and depressed.
2. **Ascending Baseline** :- Means healthy mental energy and indicates someone who wants to stay busy, active, and constantly on the go, involved in many activities simultaneously.
3. **Heavy Pressure** :- This can mean the writer is full of energy and vitality. He feels deeply self assertiveness, materialism, aggressiveness, pugnacity resistance and sensuouness etc.
4. **Large Size** :- Large writing is a sign of ambition a desire to “think big” people with this kind of writing can be very successful.
5. **Cursive Writing** :- The writer is highly sequential in though and action, he does not want to stop.

Table – 6(H)

Table showing comparison between psychological characteristics of “Independent group” given by 16PF test and graphological patterns of the subjects belonging to that group.

Psychological analysis according to 16 PF	Analysis of graphological pattern of the subjects
Independent	Independent
Aggressive	Aggressive
Incisive person	Depressed
Daring	Unfriendly
	Introvert
	Anxiety
	Fearful
	Energy
	Stay busy

(N.B. – Shown characteristics are based on the results.)

According to the psychologists an independent group is one who is aggressive, independent, daring, incisive person. He will seek those situations where such behaviour is at least tolerated and possibly rewarded, and is likely to exhibit considerable initiative.

Characteristics given by different psychologists for this group are matched with the analysis of the set of combinations of graphological patterns of the subjects of this group.

In this way it may be concluded that each personality type possess a set of combinations of graphological patterns in their handwriting and by analysing these patterns one can measure one's personality easily. Hence our fifth hypothesis that "there is no set of combinations of handwriting traits for each of the second order personality factors of 16PF test", is rejected.

CHAPTER - V

CONCLUSION

CHAPTER – V

CONCLUSIONS

From the preceding sections of discussion and analysis of the results, it becomes clear that the graphology is deeply related to the personality characteristics we see that a number of handwriting traits or combination of these traits can tell about one's personality characteristics. Hence, it may be concluded that graphology is complete, accurate examination and evaluation of behaviour and personality of one's inner self, as well as other. Psycho-graphology is a scientific study of handwriting as a means of ascertaining individual character on principles of psycho-analysis. This method of personality investigation, character-analysis and subsequent psychological study is most economical, quick and practical in application.

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Appendix - A
Table Showing Sten Scores of different Subjects of 16 PF

S.No. of the Subject	Extro Version	Anxiety	Tough Poise	Independent	S.No. of the Subject	Extro Version	Anxiety	Tough Poise	Independent
1	3.3	4.0	3.4	2.2	36	5.4	7.1	5.6	5.4
2	11.3	3.5	9.0	7.5	37	5.0	8.1	4.7	4.5
3	2.9	4.6	6.4	4.4	38	4.2	5.1	5.9	6.7
4	5.8	3.9	5.7	4.2	39	6.1	4.4	6.4	3.6
5	6.2	4.6	7.4	5.2	40	5.0	2.2	5.0	6.2
6	5.4	5.8	7.3	8.3	41	4.7	7.0	6.9	6.0
7	5.6	2.5	7.1	10.1	42	7.4	5.6	11.3	7.2
8	4.7	3.9	5.1	7.0	43	5.1	3.5	5.1	4.8
9	6.5	6.1	6.5	7.4	44	4.0	1.1	3.7	5.9
10	3.6	6.0	7.4	1.8	45	8.4	7.9	9.0	8.7
11	4.3	2.4	6.3	3.2	46	5.8	3.2	1.0	6.7
12	4.9	6.8	5.8	7.1	47	6.7	7.2	7.9	6.8
13	3.6	6.0	9.8	7.1	48	4.6	4.3	4.8	4.7
14	4.0	4.1	6.9	1.1	49	4.5	9.6	7.2	5.8
15	2.4	0.6	1.9	1.7	50	7.3	7.1	8.0	8.4
16	4.1	4.3	2.1	3.3	51	4.2	8.6	3.5	8.9
17	6.6	5.2	9.1	6.8	52	4.0	8.3	4.3	6.4
18	6.5	5.2	9.0	5.7	53	4.3	6.8	3.7	4.1
19	6.5	6.1	6.0	8.0	54	2.9	7.2	5.4	5.4
20	6.0	4.9	6.1	7.2	55	4.0	5.0	6.4	3.0
21	6.7	8.4	7.9	7.2	56	2.0	6.7	5.8	3.3
22	5.5	5.8	5.1	5.9	57	6.4	7.4	7.1	4.7
23	7.5	7.6	9.0	6.4	58	6.2	4.1	7.0	6.5
24	4.9	7.2	7.7	3.8	59	4.0	5.4	4.8	5.9
25	5.8	6.8	9.2	4.5	60	2.8	6.4	2.0	4.4
26	6.6	5.9	7.7	5.9	61	7.2	6.5	6.2	3.8
27	9.9	3.1	9.6	10.5	62	4.7	6.2	7.7	3.7
28	2.7	6.4	4.8	4.5	63	3.1	5.3	1.3	6.2
29	4.9	6.0	3.8	5.4	64	3.7	7.7	4.9	3.8
30	4.7	3.7	6.3	3.8	65	6.2	3.9	5.0	7.5
31	7.5	5.1	3.2	3.2	66	4.3	6.9	0.8	6.3
32	0.8	8.2	1.6	5.9	67	4.9	5.6	3.4	5.9
33	3.3	5.6	2.8	3.9	68	3.0	2.6	3.6	6.5
34	3.7	5.9	7.4	6.2	69	4.0	5.2	4.3	5.4
35	5.5	2.6	6.0	5.9	70	5.3	2.4	6.3	4.5

S.No. of the Subject	Extro Version	Anxiety	Tough Poise	Independent	S.No. of the Subject	Extro Version	Anxiety	Tough Poise	Independent
71	4.0	3.8	5.0	5.8	106	4.0	5.0	6.4	3.0
72	3.3	4.1	5.8	5.3	107	2.0	6.7	5.8	3.3
73	4.3	3.1	6.3	5.6	108	6.4	7.4	7.1	4.7
74	4.8	4.0	5.5	5.2	109	6.2	4.1	7.0	6.5
75	5.3	3.4	4.0	8.1	110	4.0	5.4	4.8	5.9
76	5.9	7.1	5.5	5.0	111	2.8	6.4	2.0	4.4
77	3.4	4.6	5.6	7.0	112	7.2	6.5	6.2	3.8
78	5.8	6.6	7.2	8.3	113	4.7	6.2	7.7	3.7
79	5.9	6.3	8.3	7.2	114	3.1	5.3	1.3	6.2
80	2.9	2.6	3.6	7.8	115	3.7	7.7	4.9	3.8
81	2.8	4.0	4.3	5.1	116	6.2	3.9	5.0	7.5
82	5.9	3.0	5.6	5.8	117	4.3	6.9	0.8	6.3
83	3.8	8.5	4.5	5.6	118	4.9	5.6	3.4	5.9
84	4.1	5.4	9.1	7.9	119	3.0	2.6	3.6	6.5
85	5.2	4.5	5.5	6.4	120	4.0	5.2	4.3	5.4
86	4.3	4.8	5.7	4.9	121	5.3	2.4	6.3	4.5
87	9.2	5.0	8.1	7.1	122	4.0	3.8	5.0	5.8
88	5.1	5.5	5.0	6.0	123	3.3	4.1	5.8	5.3
89	5.5	3.7	3.9	6.6	124	4.3	3.1	6.3	5.6
90	5.7	7.5	6.0	4.5	125	4.8	4.0	5.5	5.2
91	8.6	4.1	9.1	6.9	126	5.3	3.4	4.0	8.1
92	6.9	8.4	6.0	4.5	127	3.3	4.0	3.4	2.2
93	3.2	6.9	5.6	4.2	128	11.3	3.5	9.0	7.5
94	4.8	7.0	5.7	7.7	129	2.9	4.6	6.4	4.4
95	5.0	5.5	7.0	4.9	130	5.8	3.9	5.0	4.2
96	3.8	3.6	7.1	6.2	131	6.2	4.6	7.4	5.2
97	3.6	0.6	4.0	4.7	132	5.4	5.8	7.3	8.3
98	5.1	3.9	7.8	8.0	133	5.6	2.5	7.1	10.1
99	8.7	3.8	2.3	5.4	134	4.7	3.9	5.1	7.0
100	5.3	5.4	2.8	4.6	135	6.5	6.1	6.5	7.4
101	4.2	8.6	3.5	8.9	136	3.6	6.0	7.4	1.8
102	7.3	7.1	8.0	8.4	137	4.3	2.4	6.3	3.2
103	4.3	8.3	4.3	6.4	138	4.9	6.8	5.8	7.1
104	4.3	6.8	3.7	4.1	139	3.6	6.0	9.8	7.1
105	2.9	7.2	5.4	5.4	140	4.0	4.1	6.9	1.1

S.No. of the Subject	Extro Version	Anxiety	Tough Poise	Independent	S.No. of the Subject	Extro Version	Anxiety	Tough Poise	Independent
141	2.4	0.6	1.9	1.7	171	5.2	4.5	5.5	6.4
142	4.1	4.3	2.1	3.3	172	4.3	4.8	5.7	4.9
143	6.6	5.2	9.1	6.8	173	9.2	5.0	8.1	7.1
144	6.5	5.2	9.0	5.7	174	5.1	5.5	5.0	6.0
145	6.5	6.1	6.0	8.0	175	5.5	3.7	3.9	6.6
146	6.0	4.9	6.1	7.2	176	5.7	7.5	6.0	4.5
147	6.7	8.4	7.9	7.2	177	8.6	4.1	9.1	6.9
148	5.5	5.8	5.1	5.9	178	6.9	8.4	6.0	4.5
149	7.5	7.6	9.0	6.4	179	3.2	6.9	5.6	4.2
150	4.9	7.2	7.7	3.8	180	4.8	7.0	5.7	7.7
151	5.8	6.8	9.2	4.5	181	5.0	5.5	7.0	4.9
152	6.6	5.9	7.7	5.9	182	3.8	3.6	7.1	6.2
153	9.9	3.1	9.6	10.5	183	3.6	6.6	4.0	4.7
154	2.7	6.4	4.8	4.5	184	5.1	3.9	7.8	8.0
155	4.9	6.0	3.8	5.4	185	8.7	3.8	2.3	5.4
156	4.7	3.7	6.3	3.8	186	5.3	5.4	2.8	4.6
157	7.5	5.1	3.2	3.2	187	5.5	2.6	6.0	5.9
158	0.8	8.2	1.6	5.9	188	5.4	7.1	5.6	5.4
159	3.3	5.6	2.8	3.9	189	5.1	8.1	4.7	4.5
160	3.7	5.9	7.4	6.2	190	4.2	5.1	5.9	6.7
161	5.3	3.4	4.0	8.1	191	6.1	4.4	6.4	3.6
162	5.9	7.1	5.5	5.0	192	5.0	2.2	5.0	6.2
163	3.4	4.6	5.6	7.0	193	4.7	7.0	6.9	6.0
164	5.8	6.6	7.2	8.3	194	7.4	5.6	11.3	7.2
165	5.9	6.3	8.3	7.2	195	5.1	3.5	5.1	4.8
166	2.9	2.6	3.6	9.1	196	4.0	1.1	3.7	5.9
167	2.8	4.0	4.3	5.1	197	8.4	7.9	9.0	8.7
168	5.9	3.0	5.6	5.8	198	5.8	3.2	10.0	6.7
169	3.8	8.5	4.5	5.6	199	6.7	7.2	7.9	6.8
170	4.1	5.4	9.1	7.9	200	4.6	4.3	4.8	4.7

Appendix - B
Sample of Handwriting
and 16 P.F. Scale of the Subjects

Apart from the many beautiful things created by Almighty father, the bi the human beings which add to the glory, joy and happiness of the universe. Girls and boys, though brought up together by same parents, are at times treated differently, in spite of great social upliftment of girls.

The sto picture here depicts the agony of the mother rearing a girl child.

It was a good, happy living middle class family, comprising of a four members, the mother Pratibha, the father ~~Jai~~ Jai Prakash and a widow lady Kastorba devi, mother in law of Pratibha, and the least counted member being a five year girl child Sheela.

The girl was scolded, bickered on every small fault she did or work she did. Her grandma, and father would abuse her often. One day, when unknowingly she broke a glass tumbler, Her father scolded and slapped her head. She cried long, but she even gave up food at that afternoon, but none was there to wipe her ~~sobbing~~ tender tears.

✓ It is then she asks her mother that evening ^{that} why is it that she is beaten, scolded and called unwanted, and while it is then she learns a lesson ~~at~~ which her tender heart could not foresee. Her mother ~~pawpaw~~ her lovingly and tells her that it is all because you are ~~the~~ a girl though you are our only child. A lesson which the tender heart will learn when she grows up, and will be explaining the very same thing to her daughter and will this chain continue? for how long

Pantu Verma

Once there lived a boy, named 'Sangit', who was very fond of Music & Singing Song but unfortunately he had hoarse throat / harsh voice. His Master said that, it is not possible for you to become singer. He feels bad & thought that now it is not possible for me to fulfil my desire but one day he took the instrument & tried to sing, once, twice, thrice... & so many times but didn't succeed. Instead of getting disappointed he tried again & again & practiced a lot & at last the day came when he 'go' success in his venture & so the lover of sang gives recognition to his name Sangit. So we are getting Moral that God gives every bird his worm but doesn't throw into the nest. In the same way one can get success through their efforts & strong will.

Archana

When I was 7th Standard student Arvind was one of my dearest friend. He was a very intelligent and active boy of my class. He belongs to a rich family. In his family there was only one member his mother who works as a staff in charge in medical college and I like his comfortable and luxurious life too much.

One day when I go to school I heard that Arvind mother was seriously ill and Arvind take her to Delhi for a major operation. That time I did not know about the disease of his mother but after a week my class teacher told us that today is Confinement and School is closed because Arvind mother died yesterday. I am in shock to heard this sad news that day I only thought about Arvind and his mother for two and three days I am completely serious on this matter and in deep thinking but I am very surprised when after few days Arvind enter the class he was smiling and laughing there was no sign in his face which indicate us that any serious accident was passed by him not only I but the whole class were surprised by this activity of Arvind some student says that Arvind is a brave boy but some says that he is a completely child but reality was that now he was alone in this whole world and free to do anything but when I ask him about the future planning he tell me that he wanted to start business of Start - any and vedio - library shop and days pass I am busy in my study but whenever I met with Arvind I found that there is a lot of changes in Arvind attitude in every respect even in talk his behaviour like choosing friend circle, and his in

Thus, many after these years when I pass High School Examination I met during now he was a employee of medical college as a Operative. Future Teacher and also taking contract of milk and fruit of medical college and he bought a new scooter and a surprising change in his character is that now he was smoking cigarette and chewing tobacco and he says to me that he also habituated to alcohol but I remember always in my life that he always says to me that don't think deeply in any matter life everything will done automatically do every thing that you wanted to do. Life is not for living it is for enjoying but practically still to day I am able to do this or obey this completely but I think he was right.

Music has its own importance in the life of all human beings. It is an indispensable part of our lives. Recent Researches have shown that music enhance the ones capacity of doing work. It has been proved that out light Indian music can cure many diseases. In babies too also instrumental music has a very high place. According to picture it seems that music has a very vital role in the life of a young student probably this child wants to sing but he is unable very bad. May be he is thinking that nothing is impossible in this world and I can sing and I will sing some day. Mrs. Mangesh K.

ANSWER SHEET (A C.R.E. FORM TEST) THE 16 P.H.

(V. S. J.)

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THE PSYCHO-CENTRE

NAME Soujany Female 14 1 97 last
 SEX M Age 20 DATE
Raw ccw

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